AHS 1101 Orientation to Health Careers
OPT No Aud, 1 credit(s); Credit will not be granted if credit has been received for: AHS 1102;
Instructor: Simpson, Scott W
Description: This one credit course is designed for students interested in exploring the many career paths available in health care. Students will have the opportunity to reflect on their own values, skills and interests. You will also hear first-hand from an extensive line-up of guest speakers and learn more about the academic and experiential requirements for health professional schools at the University. Activities will include interest inventories, discussion, journaling, developing an action plan, and other reflective assignments. This course will help you decide if a career in the health professions is a good fit for you.

AHS 1102 Orientation to Health Careers
OPT No Aud, 1 credit(s); Credit will not be granted if credit has been received for: AHS 1101;
Instructor: Kachgal PhD, Mera
Description: This Web-based, one credit course is for undergraduate students who are exploring health majors and professions. Students will have the opportunity to reflect on their own values, skills and interests. You will learn more about the academic and experiential requirements for health professional schools at the University. Activities will include interest inventories, discussion, journaling, developing an action plan, and other reflective assignments. This course will help you decide if a career in the health professions is a good fit for you.
Style: 100% Web Based.
Grading: 33% quizzes, 33% reflection paper, 33% other evaluation.
Exam Format: multiple choice, matching, true/false, and short answer

AHS 1102 Orientation to Health Careers
OPT No Aud, 1 credit(s); Credit will not be granted if credit has been received for: AHS 1101;
Instructor: Simpson, Scott W
Description: This one credit course is designed for students interested in exploring the many career paths available in health care. Students will have the opportunity to reflect on their own values, skills and interests. You will also hear first-hand from an extensive line-up of guest speakers and learn more about the academic and experiential requirements for health professional schools at the University. Activities will include interest inventories, discussion, journaling, developing an action plan, and other reflective assignments. This course will help you decide if a career in the health professions is a good fit for you.

AHS 1600 The Future Physician I: Medicine in the 21st Century
A-F only, 1 credit(s); prereq instr consent ;
Instructor: Todd, Tricia
Description: Student may contact the instructor or department for information.

AHS 1602 The Future Physician III: Experiences in Health
2 credit(s); prereq [1600 or 1601], instr consent , permission number;
Instructor: Todd, Tricia
Description: Student may contact the instructor or department for information.

AHS 2300 Orientation to Clinical Research
A-F only, 1 credit(s); prereq instr consent , [referral from UMTC academic adviser or faculty member], interview, application essay, GPA of at least 3.50;
Instructor: Kachgal PhD, Mera
Description: This seminar course is intended for pre-health students who are exploring careers in clinical research. Course topics will include an introduction to the field of clinical research, ethical conduct and professionalism, and clinical research methods pertinent to dentistry, medicine, public health, pharmacy, and nursing. In addition to biweekly lectures, students will participate in a supervised field experience in which they observe clinical research practices. In addition, students will develop a clinical research proposal for the Undergraduate Research Opportunity Program (UROP).

AHS 2707H Global Health Challenges for Future Health Professionals
A-F only, 2 credit(s), max credits 8, 4 completions allowed;
Instructor: Todd, Tricia
Description: This is a two-credit course designed for freshman and sophomore students in the University Honors Program who have an interest in learning more about emerging health issues and the challenges and opportunities health professionals have as they work to address those health issues. You will hear from researchers, faculty, and practicing health professionals who are wrestling with the challenges to human and animal health and how those challenges are tied to the changing expectations and responsibilities of health professionals. The increasing, changing and expanding challenges to human health will require more broadly and highly trained health professionals in the future. This course will help you understand what you need to prepare for, and how to begin that preparation. This course is intended for freshman/sophomore students. Questions, contact the University Honors Program.

AHS 4300 Directed Study
1-3 credit(s), max credits 6; prereq instr consent ;
Instructor: Todd, Tricia
Description: Student may contact the instructor or department for information.

Accounting

ACCT 2050 Introduction to Financial Reporting
A-F only, 4 credit(s); prereq Soph; Credit will not be granted if credit has been received for: APEC 1251;
Instructor: Biondich, Nick E
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a student group. Visit “Class URL” for ODL policies, including fee and financial aid restrictions. In this course, you will learn: --the nature of financial transactions; --the Generally Accepted Accounting Principles (GAAP) that businesses and nonprofit organizations in the U.S. must follow in reporting these transactions; -- the vocabulary of financial accounting, sometimes described as the language of business; and --the representations made by financial statements. As you learn the fundamentals of accounting, you will gradually discern many areas that will affect you throughout your life. Whenever your corporate employer describes its financial goals, whenever you observe the stock market reacting to a corporation's earnings, whenever you learn about how a financially troubled company is taking steps to increase its profitability, accounting information is involved. This course will help you increase your understanding of events that take place daily in the financial community.
Style: Online with handwritten exams
Grading: 30% mid exam, 35% final exam, 35% written homework.
Exam Format: Supervised, in-person (not online) exams

ACCT 2050 Introduction to Financial Reporting
A-F only, 4 credit(s); prereq Soph; Credit will not be granted if credit has been received for: APEC 1251;
Instructor: Caliendo, Charles Michael
Description: Student may contact the instructor or department for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
ACCT 2050 Introduction to Financial Reporting
A-F only, 4 credit(s); prereq Soph; Credit will not be granted if credit has been received for: APEC 1251;
Instructor: White, Paul Andrew
Description: Student may contact the instructor or department for information.

ACCT 2050 Introduction to Financial Reporting
A-F only, 4 credit(s); prereq Soph; Credit will not be granted if credit has been received for: APEC 1251;
Instructor: Issaevitch, Thomas
Description: Student may contact the instructor or department for information.

ACCT 2050 Introduction to Financial Reporting
A-F only, 4 credit(s); prereq Soph; Credit will not be granted if credit has been received for: APEC 1251;
Instructor: Dai, Xin
Description: Student may contact the instructor or department for information.

ACCT 2050 Introduction to Financial Reporting
A-F only, 4 credit(s); prereq Soph; Credit will not be granted if credit has been received for: APEC 1251;
Instructor: Dey, Ayesha
Description: Student may contact the instructor or department for information.

ACCT 2050H Honors: Introduction to Financial Reporting
A-F only, 4 credit(s);
Instructor: White, Paul Andrew
Description: This course introduces the topic of financial accounting for U.S. organizations. The purpose of financial accounting is to provide information to owners of the firm and other interested parties to serve as the basis for making decisions about that firm. The student who successfully completes this class will be able to read and understand U.S. financial statements. This course is unusual in that it covers in one semester material that is more commonly covered in two semester courses or one and a half semester courses. The benefit to this is that the student can get a lot of education for the time and tuition dollar. Also, packing the introductory accounting into one semester frees up time and credit hours that can be used on elective courses. The cost to the student is obvious; this course moves quickly and you must be willing to put in extra time and effort in order to take advantage of this saving. The purpose of this class is to introduce accounting, which is both the language of business and its primary information system. The learning goal is that students be able to read and understand U.S. financial statements. By the end of the course, the student should be able to prepare basic financial statements including the cash flow statement and to read and interpret annual financial reports.
Style: 50% Lecture, 20% Discussion, 30% Small Group Activities.
Grading: 40% mid exam, 20% final exam, 8% special projects, 16% quizzes, 3% written homework, 13% class participation.

ACCT 3001 Introduction to Management Accounting
A-F only, 3 credit(s); prereq 2050;
Instructor: Calliendo, Charles Michael
Description: Student may contact the instructor or department for information.

ACCT 3001 Introduction to Management Accounting
A-F only, 3 credit(s); prereq 2050;
Instructor: Batina, Tom
Description: Student may contact the instructor or department for information.

ACCT 3001 Introduction to Management Accounting
A-F only, 3 credit(s); prereq 2050;
Instructor: Khan, Mozaffar
Description: Student may contact the instructor or department for information.

ACCT 3001 Introduction to Management Accounting
A-F only, 3 credit(s); prereq 2050;
Instructor: White, Paul Andrew
Description: This course continues the topic of management accounting in greater depth. The purpose of management accounting is to provide information to management for costing products, as well as for planning, controlling, and evaluating business activities. The purpose of this class is to expand and build on the topics introduced in ACCT 3001. The course will hone and refine the tools and techniques learned in introductory management accounting classes as well as improve your decision-making skills. We will also explore several topics not covered in the introductory class as well as consider how management accounting supports overall business strategy.
Style: 10% Lecture, 45% Discussion, 45% Student Presentation.
Grading: 33% final exam, 27% written homework, 20% in-class presentation, 20% class participation.

ACCT 3201 Intermediate Management Accounting
A-F only, 2 credit(s); prereq 3001, acct or finance major;
Instructor: Shroff, Pervin Keki
Description: This course is designed for undergraduate students majoring in accounting. The course begins with an overview of the historical, conceptual, and theoretical bases of financial accounting and a review of the principal financial statements. It provides an extensive examination of income measurement and accounting issues related to assets. Accounting for liabilities and owners' equity and the more technically difficult topics, such as leases, pensions, and deferred taxes, are the subject matter of the next course in the accounting sequence. Text: "Intermediate Accounting", 9th edition, Kieso and Weygandt.
Style: 70% Lecture, 30% Discussion.
Grading: 40% mid exam, 35% final exam, 8% special projects, 16% quizzes, 7% problem solving.
Exam Format: problem solving.

ACCT 3199 Internship in Public Accounting
S-N only, 2 credit(s); prereq 5125, instr consent;
Instructor: Biondich, Nick
Description: Students interested in earning academic credit for work involving an accounting internship should contact Nick Biondich at 612-624-7055.

ACCT 3201 Intermediate Management Accounting
A-F only, 2 credit(s); prereq 3001, acct or finance major;
Instructor: White, Paul Andrew
Description: This course continues the topic of management accounting in greater depth. The purpose of management accounting is to provide information to management for costing products, as well as for planning, controlling, and evaluating business activities. The purpose of this class is to expand and build on the topics introduced in ACCT 3001. The course will hone and refine the tools and techniques learned in introductory management accounting classes as well as improve your decision-making skills. We will also explore several topics not covered in the introductory class as well as consider how management accounting supports overall business strategy.
Style: 10% Lecture, 45% Discussion, 45% Student Presentation.
Grading: 33% final exam, 27% written homework, 20% in-class presentation, 20% class participation.

ACCT 3299 Internship in Management Accounting
S-N only, 2 credit(s); prereq Acct 3201, instr consent;
Instructor: Biondich, Nick
Description: Students interested in earning academic credit for work involving an accounting internship should contact Nick Biondich at 612-624-7055.

ACCT 5101 Intermediate Accounting I
A-F only, 4 credit(s); prereq Grade of at least B- in 2050, [mgmt major or mgmt grad student];
Instructor: Shroff, Pervin Keki
Description: This course is designed for undergraduate students majoring in accounting. The course begins with an overview of the historical, conceptual, and theoretical bases of financial accounting and a review of the principal financial statements. It provides an extensive examination of income measurement and accounting issues related to assets. Accounting for liabilities and owners' equity and the more technically difficult topics, such as leases, pensions, and deferred taxes, are the subject matter of the next course in the accounting sequence. Text: "Intermediate Accounting", 9th edition, Kieso and Weygandt.
Style: 70% Lecture, 30% Discussion.
Grading: 40% mid exam, 35% final exam, 8% special projects, 16% quizzes, 7% problem solving.
Exam Format: problem solving.

ACCT 5101 Intermediate Accounting I
A-F only, 4 credit(s); prereq Grade of at least B- in 2050, [mgmt major or mgmt grad student];
Instructor: Forester, Clayton L
Description: Student may contact the instructor or department for information.

ACCT 5102W Intermediate Accounting II
A-F only, 4 credit(s); prereq 5101 [mgmt or grad mgmt student]; Meets CLE req of Writing Intensive;
Instructor: Tranter, Terry L
Description: Students in class are juniors, seniors, and master's students. While most students are accounting majors, the course is also valuable for students in finance. The class covers the valuation of liabilities and owners' equity accounts, as well as cash flow statements and earnings per share calculations. Students need a thorough background in financial accounting and present value calculations to do well in Acct 5102.

ACCT 5101 Intermediate Accounting I
A-F only, 4 credit(s); prereq Grade of at least B- in 2050, [mgmt major or mgmt grad student];
Instructor: Biondich, Nick
Description: Students interested in earning academic credit for work involving an accounting internship should contact Nick Biondich at 612-624-7055.

ACCT 3001 Introduction to Management Accounting
A-F only, 3 credit(s); prereq 2050;
Instructor: Khan, Mozaffar
Description: Student may contact the instructor or department for information.

ACCT 3001 Introduction to Management Accounting
A-F only, 3 credit(s); prereq 2050;
Instructor: White, Paul Andrew
Description: This course continues the topic of management accounting in greater depth. The purpose of management accounting is to provide information to management for costing products, as well as for planning, controlling, and evaluating business activities. The purpose of this class is to expand and build on the topics introduced in ACCT 3001. The course will hone and refine the tools and techniques learned in introductory management accounting classes as well as improve your decision-making skills. We will also explore several topics not covered in the introductory class as well as consider how management accounting supports overall business strategy.
Style: 10% Lecture, 45% Discussion, 45% Student Presentation.
Grading: 33% final exam, 27% written homework, 20% in-class presentation, 20% class participation.

ACCT 3299 Internship in Management Accounting
S-N only, 2 credit(s); prereq Acct 3201, instr consent;
Instructor: Biondich, Nick
Description: Students interested in earning academic credit for work involving an accounting internship should contact Nick Biondich at 612-624-7055.

ACCT 5101 Intermediate Accounting I
A-F only, 4 credit(s); prereq Grade of at least B- in 2050, [mgmt major or mgmt grad student];
Instructor: Shroff, Pervin Keki
Description: This course is designed for undergraduate students majoring in accounting. The course begins with an overview of the historical, conceptual, and theoretical bases of financial accounting and a review of the principal financial statements. It provides an extensive examination of income measurement and accounting issues related to assets. Accounting for liabilities and owners' equity and the more technically difficult topics, such as leases, pensions, and deferred taxes, are the subject matter of the next course in the accounting sequence. Text: "Intermediate Accounting", 9th edition, Kieso and Weygandt.
Style: 70% Lecture, 30% Discussion.
Grading: 40% mid exam, 35% final exam, 8% special projects, 16% quizzes, 7% problem solving.
Exam Format: problem solving.

ACCT 5101 Intermediate Accounting I
A-F only, 4 credit(s); prereq Grade of at least B- in 2050, [mgmt major or mgmt grad student];
Instructor: Forester, Clayton L
Description: Student may contact the instructor or department for information.

ACCT 5102W Intermediate Accounting II
A-F only, 4 credit(s); prereq 5101 [mgmt or grad mgmt student]; Meets CLE req of Writing Intensive;
Instructor: Tranter, Terry L
Description: Students in class are juniors, seniors, and master's students. While most students are accounting majors, the course is also valuable for students in finance. The class covers the valuation of liabilities and owners' equity accounts, as well as cash flow statements and earnings per share calculations. Students need a thorough background in financial accounting and present value calculations to do well in Acct 5102.
Schedule.

Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule. This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Class Schedule.

ACCT 5125 Auditing Principles and Procedures
A-F only, 4 credit(s); prereq [3101 or 5101 or 5100 or 6100], [acct major or grad mgmt student];
[Instructor: Bell, Frank J]
Description: Student may contact the instructor or department for information.

ACCT 5125 Auditing Principles and Procedures
A-F only, 4 credit(s); prereq [3101 or 5101 or 5100 or 6100], [acct major or grad mgmt student];
[Instructor: Batina, Tom]
Description: Student may contact the instructor or department for information.

ACCT 5135 Fundamentals of Federal Income Tax
A-F only, 4 credit(s); prereq [2050 or MBA 6030], [mgmt or grad mgmt student];
[Instructor: Guttermann, Paul Gerard]
Description: The course objectives are as follows: 1) to provide a historical perspective with respect to the system of income taxation in general and with respect to various specific provisions within the system; 2) to examine the interrelationships between legislative authority (the Internal Revenue Code), judicial and administrative authority; 3) to analyze the structure of the Internal Revenue Code and its provisions with respect to specific areas of the law, primarily with regard to the taxation of individuals; 4) to introduce the reading of case law and other tax authority; and 5) to provide a basic knowledge of tax research tools and techniques. The student will not be a tax expert on completion of the course, but will be familiar with fundamental income tax rules, primarily with respect to individuals, and how the federal tax system works. Although this course is a requirement for undergraduate accounting majors, only a minimal accounting understanding is required as a prerequisite and non-accounting majors are welcome.
Style: 60% Lecture, 15% Discussion. Problems
Grading: 53% mid exam, 30% final exam, 17% special projects.
Exam Format: multiple choice, short essay

ACCT 5135 Fundamentals of Federal Income Tax
A-F only, 4 credit(s); prereq [2050 or MBA 6030], [mgmt or grad mgmt student];
[Instructor: Naples, Tamara Johnson]
Description: Student may contact the instructor or department for information.

ACCT 5160 Financial Statement Analysis
A-F only, 2 credit(s); prereq [5100/6100 or 3101/5101], [accounting or finance major];
[Instructor: Issaevitch, Thomas]
Description: This course will teach students how to use financial statements for a number of purposes but with an emphasis on equity valuation. We will begin with an introduction to equity valuation concepts. We will then use business and economic knowledge, cases, and statistical evidence to understand how financial statements can be used to estimate value, earnings quality, and management ability. (Note: there are no statistical or economic pre-requisites).
Style: 40% Lecture, 40% Discussion, 20% Small Group Activities.
Grading: 30% final exam, 20% reports/papers, 20% quizzes, 20% written homework, 10% class participation.

ACCT 5236 Introduction to Taxation of Business
A-F only, 2 credit(s); prereq 5135, acct major;
[Instructor: Guttermann, Paul Gerard]
Description: Also known as "Tax 2," this course is a continuation and building upon the fundamental tax principles learned in Acct 5135. Whereas the first tax course focused on individual taxation, this course is intended as a broad overview of entity taxation. Specifically it is a survey to the income tax laws governing the taxation of corporations, partnerships, limited liability companies, limited liability partnerships, and S corporations. The course will also build upon and increase the student's knowledge and skills relating to tax research by requiring the writing of two research memorandums.
Style: 60% Lecture. 15% Discussion. Problems
Grading: 40% mid exam, 40% final exam, 20% other evaluation.
Research Memoranda
Exam Format: multiple choice - short essay

ACCT 5310 International Accounting
A-F only, 2 credit(s); prereq 5101; [5102 or Concurrent registration is required (or allowed) in 5102] recommended;
[Instructor: Rayburn, Judy Ann]
Description: Student may contact the instructor or department for information.

ACCT 5420 MAcc directed study
A-F only, 1-4 credit(s), max credits 4, 1 completion allowed;
[prereq MAcc student;]
[Instructor: Kallio, Larry Rodger]
Description: Student may contact the instructor or department for information.

ACCT 6100 Financial Statement Analysis
A-F only, 4 credit(s); prereq MBA 6030, MBA student;
[Instructor: Bell, Frank J]
Description: Student may contact the instructor or department for information.

ACCT 6160 Accounting for Mergers and Acquisitions, and Derivatives
A-F only, 2 credit(s); prereq MBA 6030, MBA student;
[Instructor: Bell, Frank J]
Description: Student may contact the instructor or department for information.

ACCT 8001 Internal Control
A-F only, 4 credit(s); prereq MAcc grad major;
[Instructor: Kallio, Larry Rodger]
Description: Student may contact the instructor or department for information.

ACCT 8002 Securities and Exchange Commission (SEC) and Standard Setting
A-F only, 4 credit(s); prereq MAcc grad major;
[Instructor: Kallio, Larry Rodger]
Description: Student may contact the instructor or department for information.

ACCT 8803 Empirical Research: Accounting Choice
A-F only, 2 credit(s);
[Instructor: Zhang, Ivy Xiying]
Description: Student may contact the instructor or department for information.

ACCT 8812 Information Economics II
4 credit(s); prereq Business admin PhD student or instr consent;
[Instructor: Kanodia, Chandra S]
Description: Student may contact the instructor or department for information.

Addiction Studies
Credit Certificate Prog/College of Continuing Edu

ADDS 4002 Internship in Substance Abuse Counseling I
S-N only, 2-8 credit(s), max credits 8, 4 completions allowed;
[prereq Adds 4001, Adds student, instr consent;]
ADD 5001 Foundations of Addiction Studies  
A-F only, 2 credit(s);  
Instructor: Van Cleve, Michael  
Description: Student may contact the instructor or department for information.

ADD 5002 Models, Methods, and Intervention Skills for Substance Abuse Counselors  
A-F only, 2 credit(s);  
Instructor: Van Cleve, Michael  
Description: Knowing the difference between Rogers and Ellis? counseling models is important. Not so much because current practitioners? practices exclusively under one model but because it deepens the counselor?s capacity to understand that theory guides thinking and decision making in the clinical environment. This course surveys the major concepts and practices of several therapeutic models including existential therapy, person centered therapy, behavior therapy, cognitive therapy and post modern models such as solution focused and narrative. The second section of the course will focus on the popular contemporary change model: motivational interviewing. Students will be exposed to several concepts such as ambivalence, confidence, motivation, resistance and commitment to change. Considerable in-class time will be dedicated to practicing MI interventions with peers. Students will finish the course fully prepared at an introductory level. Information will be provided on how students can continue their training. Instructional objectives are designed to help you: ? Understand the key concepts , the therapeutic process and the application of techniques and procedures for several different clinical models ? Discuss strengths and limitations of those approaches ? Understand the MI model of change including all of its primary concepts ? Practice increasing proficiency on using model in a practice environment ? Discuss strengths and limitations of MI model.

ADD 5003 Applied Psychopharmacology for Human Service Professionals  
A-F only, 2 credit(s);  
Instructor: Frenz, David Arthur  
Description: Student may contact the instructor or department for information.

ADD 5004 Co-Occurring Addictive and Mental Health Disorders  
A-F only, 2 credit(s); prereq Cannot be taken for cr by MSW students;  
Instructor: Van Cleve, Michael  
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. The purpose of this course is to familiarize clinical practitioners with the relationship between mental disorders and substance abuse, the characteristics of the most common mental disorders, and the methods used to treat individuals who have co-occurring conditions. The course will describe how mental health disorders interact with substance abuse disorders, the medications that are used to treat these conditions, and the community resources that can be helpful for these clients. It will also discuss approaches to assessment and counseling, including the use of the DSM-IV-TR. The goal of this course is to improve your ability to work with this population by broadening your knowledge and skills in the areas of assessment, treatment planning, and evidence-based treatment interventions.  
Style: 100% Web Based.  
Grading: --self-introduction: 1% --5 discussions: 9% --12 quizzes: 30% --2 exams: 60%

ADD 5006 Introduction to Resilience/Health Realization  
2 credit(s);  
Instructor: Marshall, Kathy M  
Description: Student may contact the instructor or department for information.

ADD 5009 Multicultural Aspects of Addiction  
2 credit(s);  
Instructor: Wamsley, Debra S  
Description: Student may contact the instructor or department for information.

ADED 5001 Adult Education Overview  
A-F only, 1 credit(s);  
Instructor: Hanes Goodlander, Lisa Ann  
Description: This online course represents an overview of the theory and practice of adult learning and adult development, which, together, comprise the field of adult education (AdEd). This course is intended for undergraduates, primarily those who are in the undergraduate HRD degree program and want an AdEd Certificate, as these two programs are integrated. Other undergrads who would like the AdEd Certificate may also use this course to complete the requirements.

ADED 3101 Introduction to Strategies for Teaching Adults  
A-F only, 3 credit(s);  
Instructor: Digby PhD, Cynthia LB  
Description:

ADED 3101 Introduction to Strategies for Teaching Adults  
A-F only, 3 credit(s);  
Instructor: Woldeab, Daniel  
Description: Student may contact the instructor or department for information.

ADED 5101 Strategies for Teaching Adults  
A-F only, 3 credit(s); prereq Grad student only;  
Instructor: Park, Rosemarie J  
Description: Student may contact the instructor or department for information.

ADED 5102 Perspectives of Adult Learning and Development  
3 credit(s);  
Instructor: Twohig, Catherine Carol  
Description: Student may contact the instructor or department for information.

ADED 5196 Field Experience in Adult Education  
S-N only, 3-6 credit(s), max credits 6, 1 completion allowed;  
Instructor: Twohig, Catherine Carol  
Description: Student may contact the instructor or department for information.

ADED 5203 Methods of Teaching Adult Literacy  
3 credit(s); prereq credit will not be granted if credit received for: ADED 5233, 5234, 5235;  
Instructor: Park, Rosemarie J  
Description: Intended for teachers involved in teaching English literacy to adults in developing nations. Learning to read as an adult in developing countries: approaches to teaching reading and writing. Technology as a teaching tool: teaching students with cultural and gender differences, English as a second language teaching and preparations for learning in English as a medium of instruction.

ADED 5211 Introduction to the Underserved Adult  
A-F only, 1 credit(s); prereq credit will not be granted if credit received for: ADED 5202;  
Instructor: Digby PhD, Cynthia LB  
Description:  
Style: 100% Web Based.

ADED 5212 Introduction to Adult Literacy in the Workplace  
A-F only, 1 credit(s); prereq 5211 credit will not be granted if credit received for: ADED 5201;
AEM 1905 Freshman Seminar: Spaceflight With Ballooning
OPT No Aud, 2 credit(s); prereq Fr;
Instructor: Flaten, James Alfred
Description: Study of inexpensive methods for reaching outer space. Design/build mini-spacecraft. Use high-altitude helium balloons to reach near-space. Launch/recovery on one Saturday in October/November. Analysis of balloon mission data. Accomplishments/challenges of past, current, and future missions.

AEM 2011 Statics
A-F only, 3 credit(s); prereq PHYS 1301W, [ Concurrent registration is required (or allowed) in Math 2374 or equiv], CSE;
Instructor: STAFF

AEM 2012 Dynamics
A-F only, 3 credit(s); prereq 2011, [ Concurrent registration is required (or allowed) in Math 2373 or equiv], CSE student;
Instructor: STAFF

AEM 2021 Statics and Dynamics
A-F only, 4 credit(s); prereq Phys 1301W, [ Concurrent registration is required (or allowed) in Math 2374 or equiv], CSE;
Instructor: Hesla, Todd

AEM 3031 Deformable Body Mechanics
A-F only, 3 credit(s); prereq [2011 or 2021 or [BMEN 3001, BMEN major]], [ Math 2374 or equiv], [ Concurrent registration is required (or allowed) in Math 2373 or equiv], CSE;
Instructor: Hambleton, William Thomas
Description: Study may contact the instructor or department for information.

AEM 3031 Deformable Body Mechanics
A-F only, 3 credit(s); prereq [2011 or 2021 or [BMEN 3001, BMEN major]], [ Math 2374 or equiv], [ Concurrent registration is required (or allowed) in Math 2373 or equiv], CSE;
Instructor: Leo, Perry H
Description: Study may contact the instructor or department for information.

AEM 4000H Honors Research Seminar
S-N only, 0 credit(s); prereq Honors student, permission of University Honors Program, AEM major;
Instructor: Shield, Thomas William
Description: Study may contact the instructor or department for information.

AEM 4201 Fluid Mechanics
A-F only, 4 credit(s); prereq 2012, [ Math 2373 or equiv], [ Math 2374 or equiv], [ CSE upper div or grad student];
Instructor: Sheng, Jian
Description: Study may contact the instructor or department for information.

AEM 4295 Problems in Fluid Mechanics
1-3 credit(s), max credits 6, 6 completions allowed; prereq dept consent;
Instructor: STAFF
Description: Topics of current interest. Individual projects with consent of faculty sponsor.

AEM 4301 Orbital Mechanics
A-F only, 3 credit(s); prereq [2012 or equiv], [ Math 2373 or equiv], [ CSE upper div or grad student];
Instructor: Ketema, Yohaness
Description: The two-body problem. Earth-satellite operations, rocket performance, re-entry dynamics, the space environments, the restricted three-body problem, interplanetary trajectories. Numerical simulations. Elementary spacecraft attitude control. Design project. Student may contact instructor for further information.

AEM 4321 Automatic Control Systems
A-F only, 3 credit(s); prereq [4303 or equiv or ME 3281 OR EE 3015], [ CSE upper div or grad student];
Instructor: salapaka, murti v
Description: Study may contact the instructor or department for information.

AEM 4331 Aerospace Vehicle Design
A-F only, 4 credit(s); prereq [2301, 4202, AEM sr] or instr consent;
Instructor: Garrard, William L
Description: Study may contact the instructor or department for information.

AEM 4495 Problems in Dynamics and Control
1-3 credit(s), max credits 6, 6 completions allowed; prereq dept consent;
Instructor: STAFF
Description: Topics of current interest. Individual projects with consent of faculty sponsor.

AEM 4502 Computational Structural Analysis
3 credit(s); prereq [Grade of at least C in 4501, [ CSE upper div or grad student]] or instr consent;
Instructor: Tadmor, Eldad B
Description: Study may contact the instructor or department for information.

AEM 4581 Mechanics of Solids
3 credit(s); prereq 3031, [ Math 2373 or equiv], [ Math 2374 or equiv], [ CSE upper div or grad student];
Instructor: James, Richard B
Description: Study may contact the instructor or department for information.

AEM 4595 Problems in Mechanics and Materials
1-3 credit(s), max credits 6, 6 completions allowed; prereq dept consent;
Instructor: STAFF
Description: Topics of current interest. Individual projects with consent of faculty sponsor.

AEM 4602W Aeromechanics Laboratory
A-F only, 4 credit(s); prereq IT upper div or grad, 4201, 4501, 4601, EngC 1011 or equiv; Meets CLE req of Writing Intensive;
Instructor: Longmire, Ellen K
Description: (Writing Intensive Course) Experimental methods and design in fluid and solid mechanics. Wind tunnel and water channel experiments involving flow visualization, pressure, velocity, and force measurements. Experimental measurement of stresses, strains, and displacements in solids and structures, including stress concentrations, aerospacel materials behavior and structural dynamics. Computerized data acquisition and analysis, error analysis, data reduction techniques. Experimental design, written and oral lab reports required.

AEM 4602W Aeromechanics Laboratory
A-F only, 4 credit(s); prereq IT upper div or grad, 4201, 4501, 4601, EngC 1011 or equiv; Meets CLE req of Writing Intensive;
Instructor: Shield, Thomas William
Description: (Writing Intensive Course) Experimental methods and design in fluid and solid mechanics. Wind tunnel and water channel experiments involving flow visualization, pressure, velocity, and force measurements. Experimental measurement of stresses, strains, and displacements in solids and structures, including stress concentrations, aerospacel materials behavior and structural dynamics. Computerized data acquisition and analysis, error analysis, data reduction techniques. Experimental design, written and oral lab reports required.

AEM 4796 Professional Experience
A-F only, 3 credit(s); prereq CSE upper div, AEM major, dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

AEM 5251 Computational Fluid Mechanics
A-F only, 3 credit(s); prereq [4201 or equiv], [CSci 1113 or equiv], [CSE upper div or grad student];
Instructor: Schwartzentruber, Thomas E
Description: Student may contact the instructor or department for information.

AEM 5321 Modern Feedback Control
3 credit(s); prereq 4321 or EE 4231 or ME 5281 or equiv;
Instructor: Jovanovic, Mihailo
Description: Student may contact the instructor or department for information.

AEM 5401 Intermediate Dynamics
A-F only, 3 credit(s); prereq CSE upper div or grad, 2012, Math 2243;
Instructor: Ketema, Yohannes
Description: Student may contact the instructor or department for information.

AEM 5451 Optimal Estimation
A-F only, 3 credit(s); prereq [[MATH 2243 or STAT 3021 or equiv], [4321 or EE 4231 or ME 5281 or equiv]] or instr consent; Credit will not be granted if credit has been received for: EE 5251;
Instructor: Georgiou, Tryphon T
Description: Student may contact the instructor or department for information.

AEM 5501 Continuum Mechanics
3 credit(s); prereq CSE upper div or grad, 3031, Math 2243 or equiv or instr consent;
Instructor: Fosdick, Roger L
Description: Student may contact the instructor or department for information.

AEM 8000 Seminar: Aerospace Engineering and Mechanics
S-N only, 1 credit(s), max credits 4, 4 completions allowed; prereq DG5 consent;
Instructor: Shield, Thomas William
Description: Student may contact the instructor or department for information.

AEM 8201 Fluid Mechanics I
3 credit(s); prereq 4201 or equiv, Math 2263 or equiv;
Instructor: Sheng, Jian
Description: Student may contact the instructor or department for information.

AEM 8203 Fluid Mechanics III
3 credit(s); prereq 8202;
Instructor: Mahesh, Krishnan
Description: Student may contact the instructor or department for information.

AEM 8231 Molecular Gas Dynamics
3 credit(s); prereq [4201 or equiv], [4203 or equiv], [ME 3324 or equiv]; Credit will not be granted if credit has been received for: ME 8361;
Instructor: Girshick, Steven L
Description: Student may contact the instructor or department for information.

AEM 8495 Advanced Topics in Aerospace Systems
A-F only, 1-4 credit(s), max credits 8, 8 completions allowed; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

AEM 8595 Selected Topics in Mechanics and Materials
1-4 credit(s), max credits 8, 8 completions allowed; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

Description: Student may contact the instructor or department for information.

AIR 1000 Leadership Laboratory
S-N only, 1 credit(s);
Instructor: Worley, John E
Description: Student may contact the instructor or department for information.

AIR 1104 Introduction to the Air Force Today I
A-F only, 1 credit(s);
Instructor: Cooper, Tracy Lynn
Description: Student may contact the instructor or department for information.

AIR 1204 History of Airpower and Communication Skills
A-F only, 1 credit(s);
Instructor: Cooper, Tracy Lynn
Description: Student may contact the instructor or department for information.

AIR 3301 Air Force Leadership, Quality, and Communication
A-F only, 3 credit(s);
Instructor: STAFF
Description: AS 3301 is a study of leadership, quality management fundamentals, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as means of demonstrating and exercising practical application of the concepts being studied. A mandatory Leadership Laboratory (cadets only) complements this course by providing advanced leadership experiences in officer-type activities, and gives the students an opportunity to apply leadership and management principles taught in this course. Target audience in first semester meet juniors.
AFRO 3401 National Security Policy  
**A-F only, 3 credit(s);**  
**Instructor:** STAFF  
**Description:** AS400 examines the national security process, regional studies, advanced leadership ethics, Air Force doctrine, and military justice. Special topics of interest focus on the military as a profession, officercy, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. A Leadership Laboratory complements this course by providing advanced leadership experiences, giving the students the opportunity to apply the leadership and management principles of this course. Target audience is first semester seniors preparing to enter active duty as commissioned Second Lieutenants in the US Air Force. Classes are a combination of lecture and guided discussion. Class time: 50% lecture, 30% discussion, 20% student briefings. Work load: 70 pages of reading per week, 2 exams, 3 papers, 2 oral presentations. Exam format: essay, short answer, matching.  
**Style:** 50% Lecture, 30% Discussion. student briefings  
**Grading:** 25% mid exam, 25% final exam, 30% reports/papers, 20% in-class presentation.  
**Exam Format:** essay, short answer, matching  

AFRO 1021 Introduction to Africa  
**4 credit(s); Meets CLE req of Global Perspectives;**  
**Instructor:** Colman, Victoria Bomba  
**Description:** This course is an introduction to the people of the African continent and incorporates fascinating findings from geography, archaeology, history, literature, economics and politics. A highlight of the semester is our participation in the US World Food Day Conference in October. The class actively participates in the televised events of the day and students especially enjoy the involvement of our work. The course provides solid background information about the continent's past and present and gives the context for understanding the serious issues facing Africans today - in areas of government, education, poverty, health and disease, environment, international relations. While learning basic and theoretical information, we are preparing for possible activities in the future. African peoples have faced increasing changes in the last 500 years. The African "Diaspora" begun centuries ago, brought Africans and their descendents to live in all the continents and newcomers are adding to the diversity of this State even now. In Africa itself, long distance contacts and trade in commodities and the periods of the Trans-Saharan and Atlantic slave trade (16th to 19th centuries) and the Indian Ocean slave trade, were followed by the era of European colonial rule from the late 19th century to the early 1960s (for most of Africa).  
**Style:** 50% Lecture, 30% Discussion. These bring visuals and new perspectives to our understanding of a lively continent.  
**Grading:** 25% mid exam, 25% final exam, 25% reports/papers, 25% special projects.  
**Exam Format:** short identifications and essay - there are choices in all parts of the exam to allow for factual information and students' experiences and creativity.  

AFRO 1201 Racial Formation and Transformation in the United States  
**3 credit(s); Meets CLE req of Diversity and Soc Justice US;**  
**Instructor:** Onishii, Yuichiro  
**Description:** Grading basis/credits: 3 credit(s) Description: What does it take to discuss race seriously? An exploration of this question demands a counter-narrative, for our contemporary moment is such that a growing public opinion (1) casts America as a "racless" nation, (2) interprets antiracism as "reverse racism," and (3) embraces "diversity" to maintain the racial status quo. Talking about race is not easy to be sure; it engenders a host of unsettling emotions ranging from guilt and shame to anger. Yet not talking about race as a social fact in American life and culture forecloses possibilities to understand how racial differences are constructed through domination over time and ultimately to reach across myriad boundaries of social difference to strive toward a shared sense of community and belonging. Together, we will participate in racial struggles, albeit at times painful and challenging, to address and grapple with ethico-political imperatives to pursue social justice and make the notion of diversity an analytic category.  
**Grading:** 40% Lecture, 40% Discussion, 20% Small Group Activities. Work Load: 80-100 pages reading per week, 18 pages writing per term, 1 exams. Grade: 80% written homework, 20% class participation.  

AFR 3001 West African History: Early Times to 1800  
**3 credit(s); Meets CLE req of Global Perspectives;**  
**Instructor:** Colman, Victoria Bomba  
**Description:** This course will examine the story of some of the people of this region, especially through the changes and developments which took place among several individual groups. The emphasis will be upon understanding well, the events of some "representative" people's histories, rather than attempting to understand what occurred in each and every group. There are too many groups and activities to study in a semester. Main themes of the course will include the family or lineage as the building block of all other institutions, the development of centralized political authority or states in West Africa, and the organization of people who did not adopt the state idea. We will examine economic developments, the spread of Islam, and the appearance of Europeans off certain coastal areas. Here a new frontier or border formed, one of hundreds in West African History. As with all other West African borders, the operational institutions of the African-European frontier were mainly being set by West African mechanisms. Until well into the nineteenth century, therefore, European (and American) traders were paying tribute and were in client, guest, or "stranger" relations with their West African patrons, hosts, or "lendards".  

AFRO 3108 Black Music: A History of Jazz  
**3 credit(s);**  
**Instructor:** Williams, Yolanda Y  
**Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. The History of Jazz course looks at the development of America's true "classical" musical form. We will trace the roots of Jazz from West Africa to the spirituals and work songs of the African slave through Blues to the first form of Jazz – New Orleans Dixieland. The other jazz forms of Swing, Bebop, and Cool through Neo-Classicism will also be studied. Because the course focuses primarily on the social, economic, and political impact on jazz, and vice versa, it is a perfect course for both the musician and the non-musician. Musicians will appreciate the developmental aspects of this once brand-new musical form and will gain a better understanding of how music elements such as form, instrumentation, etc., and life interact and evolve.
AFRO 3431 Early Africa and Its Global Connections
4 credit(s); Credit will not be granted if credit has been received for: HIST 3431; Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives; Instructor: Pohlhardt-McCormick, Helena
Description: Student may contact the instructor or department for information.

AFRO 3592W Introduction to Black Women Writers in the United States
3 credit(s); Meets CLE req of Writing Intensive; Instructor: Pate, Alexs D.
Description: This course seeks to explore the literary production of North American Black women from diverse backgrounds and perspectives. Through their varied and common experiences of Black females living in a white-male-dominated culture, we will endeavor to understand the social construction of race and gender, as well as, their intersection with class and social-economic dynamics. In the Black cultural and literary traditions of truth narratives, and transparency, these women share their historical, cultural, and contemporary experiences and insights with verve and authority. At the heart of their literary pursuit is the aspiration to live a more informed, enriched, and inspired life. In so doing, these writers offer us important lessons about creativity, hope, empowerment, courage, and self-expression.

AFRO 3597W Introduction to African American Literature and Culture I
4 credit(s); Meets CLE req of Writing Intensive; Instructor: Wright, John S
Description: AFRO/ENGL 3597W African Americans are “America’s metaphor.” Richard Wright declared, posing both a riddle and a riddle that together reverse conventional perspectives and intimate how we might discover in the shadows of American literary life our brightest mirrors. Following his lead, we will try to see ourselves—and the paradoxes and potentialities of our national experience—through the world of words and images conjured up over the past two centuries by African American writers. In AFRO/ENGL 3597W, we will employ a cornucopia of literary texts, oral traditions, audiovisual materials, and internet resources to bring the figures of black literary tradition out of the shadows and under an extended exploratory gaze. Understandably, African American literature evolved as a heavily ?committed? tradition with both ancient African and Euro-American antecedents. Much of its mythological system and special ?equipment for living? has been built on the communal base of the most elaborate vernacular tradition in American English—epic tales and legends, spirituals, blues, work songs, ballads, rhymed toasts, riddles, proverbs, jazz, jokes, and the rhetoric of rap music. During this first semester, our caravan will lead us forward from pre-modern Africa itself and the era of the earliest African American literary works ? 18th and 19th century slave autobiographies, oral folk texts, abolitionist essays, orations and poems?on to the contemporary period of literature marked by burgeoning diversity and modernist innovation, by growing critical acclaim, and by the Jazz Age politico-aesthetic art movement known as the Harlem Renaissance. Final Course Grade Components: 3 short essays?1/6th each; combined quizzes?1/6th; final paper?1/3rd (80% for the final draft of the paper itself, 20% for the preliminary thesis and full sentence outline submitted at the Research Paper Workshop)

AFRO 3601W African Literature
3 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Literature; meets CLE req of Writing Intensive; Instructor: Githire, Njeri R
Description: AFRO 3601W covers both broad and specialized topics in the African literary tradition. Students should be informed that the reading and writing assignments in this class entail exceptionally detailed and sophisticated analyses of texts belonging to a literary tradition with its own unique perspective. The themes covered will be varied, multi-layered, and complex. Assigned texts will include works by authors from different parts of Africa. Course reserve readings and other extra-textual resources will be geared towards highlighting the composite issues that these texts engage with. Besides the extensive literary readings, cultural and literary theory will be of significant importance in understanding the issues that the literary texts explore. During in-class discussions, cultural and historical backgrounds will be built in order to help illuminate crucial aspects of the societies studied, as well as to reinforce students’ understanding of the texts and the dynamics in which they unfold. All this entails that students read, understand, and critically write about the material on its own terms, not any customary, it’s usual, and ?prevailing? way the students may be acquainted with prior to taking this class. Students enrolling in this class are expected to be knowledgeable in research methods (reference of sources, citations, writing of research papers?), basic literary vocabulary, concepts and devices. On the whole, the methodological approach to texts in this course is inspired by theoretical perspectives focusing on concepts of identity production (representation, othering, etc.), translation of reality, the relationship between text and context, language and power. Some background knowledge of these theories, while not mandatory, should prove particularly useful.
Style: 40% Lecture, 10% Film/Video, 40% Discussion, 10% Student Presentation. We watch video/films in class related to topics being explored then discuss the material viewed.
Grading: 40% reports/papers, 30% quizzes, 10% in-class presentation, 20% class participation. The assumption being that students read the assigned texts (and view films on reserve) prior to class, pop-quizzes and in class graded exercises will be given in class throughout the semester and they will constitute 20% of the final grade.
Exam Format: Two (2) of four (4) papers, each of them 6-10 pages (typed, double spaced) due on dates indicated on the syllabus. In each one of them, students will be expected to focus on a theme and develop it through careful exploration and analytical insight.

AFRO 3910 Topics in the African Diaspora.
3 credit(s), max credits 9, 3 completions allowed; Instructor: Sugnet, Charles J
Description: Special Course in conjunction with Walker Art Center?S Retrospective Sembene Screenings Sembene is widely regarded as the founder of African cinema and a major figure in world film. The British Film Institute chose his film Xala (The Curse) for its centenary collection of the 100 best films made in cinema?S first hundred years. Walker Art Center is doing a Sembene retrospective this fall, giving us a rare chance to view all nine of his feature films (some of them quite rare) in full 35mm projection, with various scholars introducing them and discussing them. Sembene was also a novelist, and many of the films are based on novels and short stories that he himself wrote. The class will read and study some of these literary works in order to compare them with the films they inspired, and will also view in class shorter films by Sembene that are not on the Walker program. Because Sembene?S work deals with all the post-independence issues that still confront Africa today, the course will be of interest to students from a variety of disciplines, including literature, film studies, global studies, cultural studies, African studies, history, women?S studies, and geography. Students from outside the University of Minnesota may register for: HIST 3431; Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives; Instructor: Pohlhardt-McCormick, Helena
Description: Student may contact the instructor or department for information.

AFRO 4001 Seminar: History of Women in South Africa
3 credit(s); Credit will not be granted if credit has been received for: HIST 3438;
AFRO 4105 Ways of Knowing in Africa and the African Diaspora
A-F only, 3 credit(s);
Instructor: Onishi,Yuichiro
Description: This course is an interdisciplinary examination of the knowledge systems of Africa and the African diaspora. It is a senior level seminar built on the assumption that we will create rich and substantial discussion on knowing. The lenses of culture will figure prominently in our analysis. We will engage in an interrogation of what scholars call African knowledge systems. This will serve as the context for interrogating African American knowing, as well as other cultures of the African diaspora. The idea is to open the door to the complicated epistemological and ontological possibilities of African and the African diaspora. Then we contemplate the shared and distinctive knowledge systems between Africa and the African diaspora. Indeed the knowledge systems of the continent are vast and the diaspora spans the globe: the Americas, Europe, Asia. Our most pointed focus, however, is the ways of knowing and world views of African Americans, a nodal point in the African diaspora. We will also selectively examine cultures in West Africa, the Americas, and the Caribbean. Nonetheless, our deepest focus will be on the African American case in the U.S. and the ways of knowing forged in the crucible of enslavement into the current period. We will certainly pay attention to the impact of European knowledge systems on the African world, but a key concern is how peoples on the African continent and across the African diaspora have produced and defined knowledge for themselves. Indeed this opens up a space for critically looking at the production of Western knowledge and the problems of the process. We raise and explore the question: whose interests are served by the scientific/Western world view? What has been its impact on the modern and so-called post-colonial worlds? What does it mean to know in Africa and the African diaspora in the midst of tremendous diversity and complexity? Our perspective is comparative and the emphasis is on epistemological properties, worldviews, and modes of transmission associated with the peoples of the African world. Attention will be given to both theories and methodologies. Students will examine continuity and change in the way African peoples have thought about the world and left epistemological imprints upon the world. Most importantly, the course will focus on fostering the ability to critically think and analyze knowledge production from multiple perspectives.

AFRO 4593 The African American Novel
3 credit(s); Credit will not be granted if credit has been received for: ENGL 4593;
Instructor: Wright,John S
Description: AFRO /ENGL 4593: The African American Novel Since romanticism and literary abolitionism converged in the 1850s, African American storytellers have discovered strategic uses for the modern novel -- making it both an ethical instrument and a vessel of ancestral traditions. Inclined initially more to social realism than to fantasy, romance, or surrealism, black American novelists have created a ?committed? literature rooted in the view that the images and ideas of the novel are potential weapons in the struggle for social justice and social transformation. Yet an ever-ready countercurrent of comedies, satires, historical fables, and speculative fictions conjured up by African American novelists express their indebtedness also to philosophical and folk traditions that view literature as a ritualistic and healing exploration of human possibility and the transmundane -- of alternate worlds and worldviews. This course explores these African American novelistic traditions -- plot patterns, character types, settings, symbols, themes, movements, and mythologies. From the little known novelistic worlds of late nineteenth century preachers and journalists to Harlem Renaissance political thrillers and urban picaresques to internationally renowned neo-slave narratives, Black Arts magic realism, and philosophical metafictions from the late twentieth century, we will steer a course through the creative and critical torrents of the modern black imagination. Because these writers have been profoundly concerned with social and historical truth, we will find that the materials and techniques of many African American novels, while dramatizing the conflicts and consciousness of the individual, attempt to "reconstruct" emplotmentically the experiences and historical consciousness of the group. To complement lectures, during regular class meetings we will rely periodically on filmed interviews or documentaries, as well as on a variety of informal small groups to help focus your attention on the texts and concepts at hand, to strengthen your abilities to articulate and share what you have learned, and to provide another gauge of how successfully you are mastering various elements of the course. The course is designed for advanced undergraduates and graduate students. Written assignments and grading options as follows: Critical Research Paper: Each student is required to write an 10-12 page typed research paper (15-20 pages for graduate students) examining the critical reception (original reviews, etc.), interpretive controversies, and current standing of one of the course novels Grades: Option A ? 40% journal, 40% term paper, 10% one-page rationales, 10% class participation Option B ? 30% short paper, 50% term paper, 10% rationales, 10% class participation
AFEE 2051 Current Technical Competencies
3 credit(s);
Instructor: Swiggum, James Frederick
Description: Student may contact the instructor or department for information.

AFEE 2221 People Skills for Leadership
A-F only, 3 credit(s);
Instructor: Peterson, Roland L
Description: Student may contact the instructor or department for information.

AFEE 3096 Experiential Learning: Production and Business
1-8 credit(s), max credits 12, 12 completions allowed; prereq
AgEd major, instr consent;
Instructor: Greiman, Brad
Description: Student may contact the instructor or department for information.

AFEE 3096 Experiential Learning: Production and Business
1-8 credit(s), max credits 12, 12 completions allowed; prereq
AgEd major, instr consent;
Instructor: Leising, James G
Description: Student may contact the instructor or department for information.

AFEE 3112 Technical Drawing and Production Technologies
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: BIE 3112;
Instructor: Swiggum, James Frederick
Description: Student may contact the instructor or department for information.

AFEE 3361 World Development Problems
3 credit(s); Meets CLE req of Global Perspectives;
Instructor: Amenumey, Felix K.
Description: Student may contact the instructor or department for information.

AFEE 5111W Agricultural Education: Methods of Teaching
4 credit(s); Meets CLE req of Writing Intensive;
Instructor: Westrom, Lyle Emil
Description: The goal of this course is to provide an overview of instructional strategies utilized by agricultural education instructors in secondary schools, and by adult educators in agricultural businesses, organizations, and government agencies. This course will examine the teaching and learning process, and is intended to assist agricultural education undergraduate students in developing effective teaching skills. Students will learn techniques necessary for designing instruction, motivating learners, leading the educational process, and managing the learning environment. The problem-solving approach to teaching is stressed for a major portion of the course and students will seek/interpret information on how to keep a horse well fed and healthy. Nutrition, feedstuffs, pasture, health. How to use of dietary feed additives/enhancers.
Style: 40% Lecture, 30% Discussion, 30% Laboratory.

AFEE 5111W Agricultural Education: Methods of Teaching
4 credit(s); Meets CLE req of Writing Intensive;
Instructor: Greiman, Brad
Description: The goal of this course is to provide an overview of instructional strategies utilized by agricultural education instructors in secondary schools, and by adult educators in agricultural businesses, organizations, and government agencies. This course will examine the teaching and learning process, and is intended to assist agricultural education undergraduate students in developing effective teaching skills. Students will learn techniques necessary for designing instruction, motivating learners, leading the educational process, and managing the learning environment. The problem-solving approach to teaching is stressed for a major portion of the course and students have the opportunity to practice the delivery of instruction in a performance-based format.
Style: 40% Lecture, 30% Discussion, 30% Laboratory.

AFEE 5231 Agricultural Education Curriculum K-12
A-F only, 2 credit(s);
Instructor: Leising, James G
Description: Student may contact the instructor or department for information.

AFEE 5361 World Development Problems
3 credit(s); prereq Grad students only;
Instructor: Amenumey, Felix K.
Description: Student may contact the instructor or department for information.

AFEE 5697 Teaching Internship: School and Classroom Setting
2 credit(s); prereq WHRE 5696 for initial licensure program;
Instructor: Leising, James G
Description: Student may contact the instructor or department for information.

AFEE 5993 Directed Study in Agricultural Education and Extension
1-9 credit(s), max credits 9, 1 completion allowed;
Instructor: Westrom, Lyle Emil
Description: Student may contact the instructor or department for information.

AFEE 5993 Directed Study in Agricultural Education and Extension
1-9 credit(s), max credits 9, 1 completion allowed;
Instructor: Leising, James G
Description: Student may contact the instructor or department for information.

AFEE 5995 Integrating Paper—Master of Education: Agricultural and Extension Education
A-F only, 1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Greiman, Brad
Description: Student may contact the instructor or department for information.

AFEE 5995 Integrating Paper—Master of Education: Agricultural and Extension Education
A-F only, 1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Leising, James G
Description: Student may contact the instructor or department for information.

Agronomy and Plant Genetics
411 Borlaug Hall

AGRO 1007 Horse in Your Backyard
A-F only, 2 credit(s); Credit will not be granted if credit has been received for: ANSC 1007;
Instructor: Hathaway, Marcia R
Description: Role of horses in society. How to keep a horse well fed and healthy. Nutrition, feedstuffs, pasture, health. How to seek/interpret information on vaccination, worming, nutrition, grazing management, hay selection, manure handling, and use of dietary feed additives/enhancers.

AGRO 1093 Directed Studies
1-4 credit(s), max credits 12, 12 completions allowed; prereq
4 cr in agronomy, instr consent;
Instructor: Braathe, Mary Patricia
Description: Student may contact the instructor or department for information.

AGRO 1093 Directed Studies
1-4 credit(s), max credits 12, 12 completions allowed; prereq
4 cr in agronomy, instr consent;
Instructor: Cardwell, Vernon Bruce
Description: Student may contact the instructor or department for information.
AGRO 1101 Biology of Plant Food Systems
4 credit(s); Meets CLE req of Biological Sciences;
Instructor: Smith,Kevin Paul
Description: This course is designed for students who are not majors in a life science program, but who wish to acquire a better understanding of biological concepts especially as they relate to their lives. This course fulfills the University’s Council on Liberal Education Diversified Core requirement for a biology course with lab and the Designated Theme environment. Throughout this course, we will examine in depth, current issues related to food, food production and the environment. These issues will provide the context in which we investigate fundamental concepts of biology and examine ecological principles including productivity, energy, genetic change in populations, and environmental responses to human activity.
Style: 30% Lecture, 1% Film/Video, 7% Discussion, 40% Laboratory, 20% Small Group Activities, 2% Student Presentation.
Grading: 15% final exam, 21% reports/papers, 7% special projects, 6% quizzes, 27% written homework, 24% additional semester exams. 24% additional exams is really three tests that are worth 8% each. Each test is conducted individually and in a small group (collaboratively).
Exam Format: Multiple choice, short answer

AGRO 1103 Crops, Environment, and Society
4 credit(s); Credit will not be granted if credit has been received for: AGUM 2222; Meets CLE req of Environment;
Instructor: Sheaffer,Craig Charles
Description: Life on earth is dependent on plants. Learn about food, fiber, and medicinal plants that are important to our society, their impact on environmental quality, and how they are improved and cultured. Discuss currently important topics such as genetic engineering, food safety, water quality, organic agriculture, and species preservation. In a laboratory, learn about how plants grow, and about food products derived from plants. This course is intended for undergraduate majors and non-majors interested in a general understanding of food and fiber production from crop plants. In the class, we use several approaches to learning, such as case studies, and minimize lecturing. We promote discussion by viewing videos and reviewing recent newspaper and magazine articles.
Style: 30% Lecture, 40% Discussion, 20% Laboratory. Problem solving
Grading: 40% mid exam, 20% final exam, 20% laboratory evaluation, 20% problem solving.
Exam Format: Short answer

AGRO 1660 First-Year Colloquium/Experience in Agroecosystems Analysis
A-F only, 2 credit(s); prereq 1st yr in major hosted by Department of Agronomy and Plant Genetics;
Instructor: Anderson,James Allan
Description: Student may contact the instructor or department for information.

AGRO 4093 Directed Studies for Advanced Students
1-4 credit(s), max credits 12, 12 completions allowed; prereq 15 cr in agronomy, instr consent; 
Instructor: Cardwell,Vernon Bruce
Description: Student may contact the instructor or department for information.

AGRO 4096 Professional Experience Program: Internship
S-N only, 1-3 credit(s), max credits 6, 6 completions allowed; prereq CFANS undergrad, instr consent , completed internship contract from CFANS;
Instructor: Cardwell,Vernon Bruce
Description: Student may contact the instructor or department for information.

AGRO 4097 Undergraduate Research Thesis
A-F only, 1-6 credit(s), max credits 12; prereq Jr or sr; 
Instructor: Smith,Kevin Paul
Description: Student may contact the instructor or department for information.

AGRO 4103 World Food Problems
3 credit(s); prereq Jr or sr or grad; Credit will not be granted if credit has been received for: APEC 4103; Meets CLE req of Global Perspectives;
Instructor: Porter,Paul M
Description: This course provides a multi-disciplinary look at problems (and some of the possible solutions) affecting food production, storage, and utilization. Presentations and discussions introduce and discuss sometimes conflicting views on population control, use of technology, as well as the ethical and cultural values of people in various countries of the world. Emphasis is placed on the need for governments, international assistance agencies, international research and extension centers, as well as the private business sector to assist in solving these complex problems. Students can enroll in either Agro 4103 or APEC 4103. Previous background in any of the disciplines is not required, but students should expect upper division and/or graduate level assignments.
Style: 33% Lecture, 33% Discussion.
Grading: 60% reports/papers, 25% special projects, 15% class participation.

AGRO 4603 Field Crop Scouting and Problem Diagnosis
3 credit(s); prereq 3005, Soil 3416, [J2501, Ent 3001, PIPA 2002] or Agr 3001), [jr or sr], 16-20 cr in major; 
Instructor: Cardwell, Verno Bruce
Description: Student may contact the instructor or department for information.

AGRO 4660 Senior Capstone
A-F only, 2 credit(s); prereq 4096; 
Instructor: Muehlbauer,Gary John
Description: This course examines the complexities of agricultural issues through a series of discussions. The course also engages students in exercises and discussions that integrate previous educational situations. This course is linked to undergraduate internships and other experiential learning opportunities such as thesis or direct studies and service learning. Written and oral assignments are based on internships or other learning experiences.
Style: 10% Lecture, 90% Discussion.
Grading: 50% reports/papers, 30% in-class presentation, 20% other evaluation, class discussion

AGRO 4888 Issues in Sustainable Agriculture
2 credit(s); prereq 1103, Soil 1125 or 2125 or equiv; 
Instructor: Sheaffer,Craig Charles
Description: Study the social, economic, political and environmental aspects of a sustainable agriculture through discussions with experts in the field. Specific topics can include: the history of agriculture and the family farm, government farm policy, the importance of biodiversity for healthy landscapes, rural communities, quality of life, community supported agriculture, organic agriculture, landscape health and non-profit organizations. Teaching approaches will include student, faculty and producer-led discussions. The course will include on-farm visits. Target audience: non-majors and majors interested in sustainable agriculture.

AGRO 5311 Research Methods in Crop Improvement and Production
S-N only, 1 credit(s); prereq applied plant sciences grad; 
Instructor: Anderson,James Allan
Description: Student may contact the instructor or department for information.

AGRO 5321 Ecology of Agricultural Systems
A-F only, 3 credit(s); prereq [3xxx or above] course in [Agro or AnSc or Ent or Hort or PlPa or Soil] or instr consent; Credit will not be granted if credit has been received for: ENT 5321; 
Instructor: Jordan,Nicholas Royal
Description: This course develops a concept of agriculture as the result of interactions between human social systems and ecological systems. These "eco-social" interactions define an agroecology that includes humans as ecological actors. The
course aims to provide some useful concepts for viewing agriculture from this holistic, "systems" perspective, and some practical experiences in doing so. Our aim is to help our students become better able to work in the face of complex, tangled webs of problems and opportunities in agroecological challenges such as local food system development. Concepts of systems thinking are applied to agriculture through practical applications. The course features a community-based learning component, in which students apply methods of systems thinking to a local "live" agroecological problem, such as local food system development, in partnership with community organizations. The course may be useful for students interested in "the human factor" in any field of environmental studies or management. A manuscript describing the course is attached; please click on the "syllabus" link below.

Grading: 75% reports/papers, 25% class participation.

AGRO 5999 Special Topics: Workshop in Agronomy
1-6 credit(s), max credits 6, 3 completions allowed; prereq Jr or sr or grad student;
Instructor: Porter, Paul M
Description: This course provides students with an introduction to food, agriculture and agroecosystems in 10 African countries (Egypt, Sudan, Ethiopia, Kenya, Tanzania, Malawi, Zambia, Botswana, Namibia, and South Africa). In 2010 bicyclers with Tour d'Afrique (www.tourdafrique.com) will travel through these countries starting 16 January in Cairo and ending 15 May in Cape Town. In 2009 Dr. Paul Porter traveled 3,700 miles with this group until mid-March. In 2010 he intends to resume the ride in mid-March and complete the trek to Cape Town. As he travels he will be observing the food, agriculture and agroecosystems and relate these observations back to the class. Thus Dr. Porter will be in the classroom only for the first half of the semester, and traveling in Africa the second half. The class is co-taught with Dr. Mary Brakke. Students will be exposed to Dr. Porter's 2009 experiences as well as a series of faculty guest speakers with a wide array of professional activities in Africa. Upon his return to the trek in March 2010, Dr. Porter will provide daily written and audio-blogs of his experiences, focusing on food, agriculture and agroecosystems (and to a lesser extent the ride itself).
Periodically he will have direct phone conversations back to the students in the classroom. His daily blogs will include 1) the ending location, distance traveled and elevation, 2) an assessment of the water situation and climate, 3) the food he eats and what the local population eats, 4) an assessment of the agroecosystems, 5) an assessment of the culture and infrastructure, and 6) a conversation, sight, and/or reflection for the day. There will be no textbook for the class. Students will be expected to read postings provided on WebVista as well as selected websites (such as http://paulporter.wordpress.com). The target audience includes students at any grade level from any college who have an interest in 'coming along' for the ride and learning more about food, agriculture and agroecosystems (and to a lesser extent the ride itself).

AGRO 8231 Chromosome Biology
4 credit(s); prereq GCB 5034 or instr consent;
Instructor: Stupar, Robert M
Description: Students may contact the instructor or department for information.

AGRO 8270 Graduate Seminar
A-F only, 1 credit(s); prereq Grad major in [applied plnt sci or agr or ent or hort or plnt brdg or plnt path or soil] or instr consent; Credit will not be granted if credit has been received for: HORT 8270;
Instructor: Wyse, Donald L
Description: Student may contact the instructor or department for information.

AGRO 8900 Advanced Discussions
S-N only, 1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent; Credit will not be granted if credit has been received for: HORT 8900;
Instructor: Luby, James Joseph
Description: Student may contact the instructor or department for information.

American Indian Studies
19 Scott Hall

AMIN 1001 American Indian Peoples in the United States
3 credit(s); Meets CLE req of Diversity and Soc Justice US;
Instructor: STAFF
Description: This course is intended to give students a general overview of the contemporary and historic experiences of American Indian peoples in the United States and Canada. It challenges the dominant culture's stereotypes and its unthinking assumptions about American Indian people in the past and present. It shows how the peoples of America's First Nations engaged the presence and representations of foreigners in their midst through acts of resistance, rebellion, accommodation, and innovation. In the process, it illustrates the great diversity of tribal cultures and histories in North America, and it gives evidence of this in the areas of identity, work, philosophy, politics, society, language, religion, literature, and the arts.

AMIN 1002 Indigenous Peoples in Global Perspective
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: POL 1019; Meets CLE req of Global Perspectives;
Instructor: Wilkins, David E
Description: This course focuses on the social, cultural and political relationship between selected indigenous peoples and the nation-states that settled in their territories and explores the various ways these states attempted to exterminate, incorporate, and segregate the native peoples they encountered. This class can be taken as an American Indian Studies course or a Political Science Studies course. It has been cross-listed. This course fulfills CLE requirements of Global Perspective Theme.

AMIN 1003 American Indians in Minnesota
A-F only, 3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Historical Perspectives;
Instructor: McKay, Neil Troy
Description: The course will focus in particular on the history, culture, and lived experience of American Indian people in the state of Minnesota. This course will explore how Anishinaabe (Ojibwe) and Dakota people have represented their lives and histories through film, music, oral traditions and written texts. It also includes some work by American Indian scholars which focus on the distinctive cultural, philosophical, and linguistic perspectives of Anishinaabe and Dakota peoples. The course invites local Dakota and Ojibwe artists, elders, and scholars to speak on their own experiences. It is particularly interested in re-creating students' tribal pedagogical and epistemological perspectives and "ways of knowing" as practiced by Indian people in Minnesota today and in the past. This course will introduce students to the humanities as understood within the intellectual perspectives and methodologies of the Dakota and Ojibwe, in particular, and American Indian Studies, more generally. Since these perspectives fall outside the western humanities tradition, this course offers a culturally unique and tribally based perspective on subject matter in the humanities, namely literature, art, music,
philosophy and language.

**Style:** 40% Lecture, 30% Discussion. video, guest speakers

**Grading:** 20% mid exam, 20% final exam, 20% reports/papers, 10% class participation, 30% other evaluation. attendance, readings

**Exam Format:** question and answer, open ended, true false

AMIN 1201 Racial Formation and Transformation in the United States
3 credit(s); Meets CLE req of Diversity and Soc Justice US;

**Instructor:** Onishi,Yuichiro

**Description:** Grading basis/credits: 3 credit(s) Description: What does it take to discuss race seriously? An exploration of this question demands a counter-narrative, for our contemporary moment is such that a growing public opinion (1) casts America as a “raceless” nation, (2) interprets antiracism as “reverse racism,” and (3) embraces “diversity” to maintain the racial status quo. Talking about race is not easy to be sure; it engenders a host of unsettled emotions ranging from guilt and shame to anger. Yet not talking about race as a social fact in American life and culture forecloses possibilities to understand how racial differences are constructed through domination over time and ultimately to reach across myriad boundaries of social difference to strive toward a shared sense of community and belonging. Together, we will participate in racial struggles, albeit at times painful and challenging, to address and grapple with ethico-political imperatives to pursue social justice and make the notion of diversity anew. Class Time: 40% Lecture, 40% Discussion, 20% Small Group Activities. Work Load: 80-100 pages reading per week, 18 pages writing per term, 1 exams. Grade: 80% written homework, 20% class participation.

AMIN 1902 Freshman Seminar: American Indian History in Literature and Film
A-F only, 3 credit(s); prerequisite freshman; Meets CLE req of Diversity and Soc Justice US;

**Instructor:** Child,Brenda J

**Description:** Student may contact the instructor or department for information.

AMIN 3141 American Indian Language Planning
A-F only, 3 credit(s); prerequisite 3103 or 3123; Credit will not be granted if credit has been received for: AMIN 5141;

**Instructor:** Nichols,John David

**Description:** In this course, the maintenance and revitalization of North American indigenous languages, our main objective is to prepare for work in American Indian communities on languages issues through language planning activities, language documentation, and education (preparation of grammars, dictionaries, and texts), and education (preparation of pedagogical materials, design of curriculum, and teaching). Among the topics to be covered are: overview of American Indian languages; introduction to American Indian language revitalization; language shift and language death; first nation, state/provincial, federal, and international perspectives on language rights and policies; introduction to language planning; language documentation; dictionaries, grammars, and texts; lexical innovation; literacy and orthographic standardization; second language acquisition and teaching; preparing pedagogical materials; teacher training; community activities; proposal writing.

**Style:** 50% Lecture, 50% Discussion.

AMIN 3201W American Indian Literature
3 credit(s); Meets CLE req of Diversity and Soc Justice US;

**Instructor:** Meland,Carter

**Description:** How do you creatively respond to the transformations and deformations introduced into Native America by the colonizing cultures of Europe and Euroamerica? In this course, we examine how a select group of American Indian writers creatively respond to the experience of colonization in the narratives they imagine. This question is not aimed exclusively at American Indian writers though, nor is it even more generally aimed only at “other” people. Rather, this question about colonization is aimed at everyone living here now: How do you (you sitting there reading this statement) creatively respond to the transformations and deformations introduced into Native America by the colonizing culture of Euroamerica? This course invites you to think about this question and this writing, even if you never have before. In class discussions we will examine how various writers approach this question and we will familiarize ourselves with the ideas, themes, and tools of Native writers use through close readings of their works. In addition to examining the works we will also examine ways the various works ask us to consider and reconsider our own experiences of living in North America. Your responses to the works and our guiding question will be explored, examined, and developed in class discussions, a variety of short writing assignments, and in a final research essay. You will read four or five books for the course as well as a half-dozen or so short readings. As the course is Writing-Intensive you will also do about 40 pages of writing.

**Style:** 10% Lecture, 90% Discussion.

**Grading:** 80% reports/papers, 20% quizzes.

AMIN 3201W American Indian Literature
3 credit(s); Meets CLE req of Diversity and Soc Justice US;

**Instructor:** Power,Susan Mary

**Description:** Student may contact the instructor or department for information.

AMIN 3201 American Indian Philosophies
4 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Diversity and Soc Justice US;

**Instructor:** STAFF

**Description:** The purpose of this course is to introduce students to the philosophical thought and spiritual beliefs of native peoples of North America. Students will examine a broad spectrum of issues which influence the worldview of native people on this continent, including European contact and thought. Students may find some of the issues to be controversial and personally challenging, however, a thorough discussion of the impact of European influences is important to understanding native people’s resistance and survival. Finally, students will also explore the ways in which native philosophy and spiritual practices shape native life experience in a society viewed by many native people as being at odds with their beliefs.

**Style:** 60% Lecture, 20% Discussion. Group work

**Grading:** 33% mid exam, 33% final exam, 17% reports/papers, 17% class participation.

**Exam Format:** The exams will be a take home essay.

AMIN 3203 American Indians and Photography
3 credit(s); Credit will not be granted if credit has been received for: AMIN 5203; Meets CLE req of Arts/Humanities; meets CLE req of Diversity and Soc Justice US;

**Instructor:** Albers,Patricia

**Description:** This course is an historical overview of photographic representations in which American Indian people have been the central subjects. 1) It entails a study of the subtle, complex, and ever-changing relationships between those who take, pose for, and view pictures of American Indians. 2) It considers how the social contexts and purposes of picture-taking influence the content, composition, and coding of images which make up the field of American Indian photographs. 3) It gives attention to diverse and often contradictory ways in which photographs are understood in meaningful ways, and more specifically, it inquires into whether American Indian cultures engage processes of photographic representation through distinct aesthetic standards and practices. 4) In doing so, it takes a critical look at how the appearance and meaning of photographs are related not only to the cultural contexts in which they are produced, but also to the agencies of those who stand behind their making. Special attention is paid to some of the intended as well as unintended ideological and political consequences of photographic image-making in historical settings dominated by colonialism and its gaze.

**Style:** 40% Lecture, 40% Discussion. Reading and studying photographs
Grading: 60% reports/papers, 40% special projects.

AMIN 3401 American Indian Art
4 credit(s);
Instructor: Chapman, Jeffrey T
Description: Visual arts depicting rituals, traditions, values and world views of major American Indian populations. This course is designed to acquaint students with American Indian arts from pre-contact to, and including, contemporary Indian arts. It focuses on materials, techniques, symbolism, imagery and traditions that underlie the art forms in various tribal regions of North America. The class will examine the influence of other tribes and also the effect of European immigration.
Style: 50% Lecture, 50% Discussion. Students are required to create an art project using traditional materials and techniques.
Grading: 10% final exam, 30% reports/papers, 10% special projects, 40% quizzes, 5% in-class presentation, 5% class participation.
Exam Format: essay

AMIN 3402 American Indians and the Cinema
A-F only, 3 credit(s); meets CLE req of Arts/Humanities; meets CLE req of Diversity and Soc Justice US;
Instructor: Meland, Carter
Description: In American Indians and the Cinema, we examine historical and contemporary representations of American Indian peoples in film, the power inequities reflected in those representations, and American Indian resistance to those representations. We will ask ourselves how have particular images of Indians in the movies served the interests of an American nationalist agenda rather than the interests of Native individuals and nations themselves. The course aims to make such questions of the power of representation clear to students and offers the tools to engage in a critique of conventional cultural representations of American Indian people, as well as, more critically, exposing them to an emerging body of work by American Indian filmmakers asserting their own authority in controlling their images and offering their stories to the viewing world at large. The course addresses issues of diversity and social justice in the U.S. by exploring how films by American Indian filmmakers offer a differing idea of what American Indian experience has been and is—and ultimately examines the development of an American Indian “aesthetic” by Native filmmakers that is grounded in the historical and ongoing cultural viability of Native peoples. Students taking the course focus on developing a critical vocabulary for understanding both what film is and how it has historically represented American Indian peoples as well as exploring how these representations have changed, or not, in response to changing historical/social contexts. Through examinations and papers students will engage in the task of articulating their critical insights concerning the films and the contexts they emerge from and reflect on.
Style: 10% Lecture, 40% Film/Video, 40% Discussion, 10% Student Presentation.

AMIN 3409 American Indian Women: Ethnographic and Ethnohistorical Perspectives
3 credit(s); Credit will not be granted if credit has been received for: AMIN 5409; meets CLE req of Diversity and Soc Justice US; meets CLE req of Historical Perspectives;
Instructor: Albers, Patricia
Description: This course intends to provide students with a broad understanding of American Indian women across different tribal nations and over time. Although the particular expression of and expectations for their life accomplishments varies from one tribal nation to another, women contributed in important ways to provisioning, protecting, and promoting the spiritual, cultural and material well-being of their people. The course is divided into four sections, each representing a distinct focus in the study of American Indian women. The first section is concerned with representation and interpretation, or how American Indian women have been perceived in myth, literature, popular culture, and scholarly discourse. The second section studies the many ways women fed and housed their families in the past, and how they continually adapted these roles to meet the changing conditions of the present. The third section looks at the important role kinship plays in women’s lives, and it considers how work and kinship help to define a woman’s standing in her community. In doing so, the course documents the manners in which women supported and changed the destinies of their nations in diplomacy and war. And the final section covers women’s efforts to preserve the cultural integrity of their languages, artistic traditions, and spiritual beliefs.

AMIN 3701 Ojibwe Culture and History
3 credit(s); meets CLE req of Diversity and Soc Justice US; meets CLE req of Historical Perspectives;
Instructor: Jones, Dennis
Description: An introductory overview of Ojibwe culture, history, beliefs, and traditions, including philosophy and world view. The course is presented in four parts, with a test and a paper due at the completion of each part.
Style: 50% Lecture, 50% Discussion.
Grading: 20% final exam, 40% reports/papers, 40% quizzes.
Exam Format: Multiple choice; true/false; and matching

AMIN 3782 American Indian History: 1830 to the Present
3 credit(s); Credit will not be granted if credit has been received for: HIST 3782;
Instructor: Williams, Kristin
Description: Student may contact the instructor or department for information.

AMIN 4990 Topics in American Indian Studies: “Vine Deloria: A Renaissance Indigenous Figure”
A-F only, 3 credit(s), max credits 8;
Instructor: Wilkins, David E
Description: “Vine Deloria, a Standing Rock Sioux citizen, is widely considered to be the leading indigenous intellectual. He spent his life in an unrelenting effort to provide native nations with the intellectual, cultural, and substantive arguments necessary to support their sovereignty. He also was intent on improving intergovernmental relations as well, and sought to educate the broader public about the distinctive rights of native peoples and indigenous knowledge. Deloria was the most prolific native writer in history and published more than twenty-five books and hundreds of articles in a wide range of disciplines. In this course we will discuss and critically analyze a number of his major and lesser known works in several of the interconnected fields he worked in: metaphysics/philosophy, activism, law and policy, religion/spirituality, scientific critiques, and education.”

AMIN 5141 American Indian Language Planning
A-F only, 3 credit(s); prereq 3103 or 3123 or instr consent; Credit will not be granted if credit has been received for: AMIN 3141;
Instructor: Nichols, John David
Description: Student may contact the instructor or department for information.

AMIN 5303 American Indians and Photography
3 credit(s); Credit will not be granted if credit has been received for: AMIN 3303; meets CLE req of Arts/Humanities; meets CLE req of Diversity and Soc Justice US;
Instructor: Albers, Patricia
Description: This course is an historical overview of photographic representations in which American Indian people have been the central subjects. 1) It entails a study of the subtle, complex, and ever-changing relationships between those who take, pose for, and view pictures of American Indians. 2) It considers how the social contexts and purposes of picture-taking influence the content, composition, and coding of images which make up the field of American Indian photographs. 3) It gives attention to the diverse and often contradictory ways in which photographs are understood in meaningful ways, and more specifically, it inquires into whether American Indian cultures engage processes of photographic representation through distinct aesthetic standards and practices. 4) In doing so, it takes a critical look at how the appearance and meaning of photographs are related not only to the cultural contexts in which they are produced, but also to the agencies of those who stand behind their making. Special attention is paid to some of the
intended as well as unintended ideological and political consequences of photographic image-making in historical settings dominated by colonialism and its gaze.

**Style:** 40% Lecture, 40% Discussion. reading and studying photographs

**Grading:** 60% reports/papers, 40% special projects.

**AMIN 5402 American Indians and the Cinema**

3 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Diversity and Soc Justice US;

**Instructor:** Meland, Carter

**Description:** In American Indians and the Cinema, we examine historical and contemporary representations of American Indian peoples in film, the power inequities reflected in those representations, and American Indian resistance to those representations. We will ask ourselves how have particular images of Indians in the movies served the interests of an American nationalist agenda rather than the interests of Native individuals and nations themselves. The course aims to make such questions of the power of representation clear to students and offers the tools to engage in a critique of conventional cultural representations of American Indian people, as well as, more critically, exposing them to an emerging body of work by American Indian filmmakers asserting their own authority in controlling their images and offering their stories to the viewing world at large. The course addresses ideas of diversity and social justice in the U.S. by exploring how films by American Indian filmmakers offer a differing idea of what American Indian experience has been and is—and ultimately examines the development of an American Indian ?aesthetic? by Native filmmakers that is grounded in the historical and ongoing cultural viability of Native peoples. Students taking the course focus on developing a critical vocabulary for understanding both what film is and how it has historically represented American Indian peoples as well as exploring how these representations have changed, or not, in response to changing historical/social contexts. Through examinations and papers students will engage in the task of articulating their critical insights concerning the films and the contexts they emerge from and reflect on.

**Style:** 10% Lecture, 40% Film/Video, 40% Discussion, 10% Student Presentation.

**AMIN 5409 American Indian Women: Ethnographic and Ethnohistorical Perspectives**

3 credit(s); Credit will not be granted if credit has been received for: AMIN 3409;

**Instructor:** Albers, Patricia

**Description:** This course intends to provide students with a broad understanding of American Indian women across different tribal nations and over time. Although the particular expression of and expectations for their life accomplishments varies from one tribal nation to another, women contributed in important ways to provisioning, protecting, and promoting the spiritual, cultural and material well-being of their people. The course is divided into four sections, each representing a distinct focus in the study of American Indian women. The first section is concerned with representation and interpretation, or how American Indian women have been perceived in myth, literature, popular culture, and scholarly discourse. The second section studies the many ways women fed and housed their families in the past, and how they continually adapted these roles to meet the changing conditions of the present. The third section looks at the important role kinship plays in women's lives, and it considers how work and kinship help to define a woman's standing in her community. In doing so, the course documents the manners in which women supported and changed the destinies of their nations in diplomacy and war. And the final section covers women's efforts to preserve the cultural integrity of their languages, artistic traditions, and spiritual beliefs.

**American Sign Language**

240 VoTech Building

**AMST 1905 Freshman Seminar: Reading the Mississippi**

3 credit(s); Meets CLE req of Civic Life and Ethics; meets CLE req of Historical Perspectives;

**Instructor:** Fajardo, Kale Bantigue

**Description:** Student may contact the instructor or department for information.

**AMST 2011 The United States since September 11**

3 credit(s); Meets CLE req of Civic Life and Ethics; meets CLE req of Historical Perspectives;

**Instructor:** Ferguson, Roderick A

**Description:** We think that those two towers were the only things that collapsed on that morning in September. But a lot more fell than has been reckoned with. We think that those attacks left only empty spaces in the middle of New York City. But a lot was erected in the name of what was lost. This course...
analyzes the changes that took place within the United States and how those changes have a history in prior and forgotten wars in Asia, the Middle East, and Latin America. This course investigates how that day was remembered in the official terrains of government and in the unofficial venues of literary and visual art. This class asks how the lives of citizens and immigrants changed in the aftermath and tries to take stock of all that fell and all that was erected one day in 2001.

Style: 50% Lecture, 50% Discussion.
Grading: 35% mid exam, 35% final exam, 10% class participation.
Exam Format: essay, short answer

AMST 3252W American Popular Culture and Politics: 1900 to 1940
4 credit(s); Meets CLE req of Civic Life and Ethics; meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;
Instructor: Prell,Riv-Ellen
Description: In this course, we will examine how the United States changed since World War II as a result of domestic and international struggles, exploring the role popular culture played in this transformation. During these years the nation became an international power, altering the ways in which Americans understood their place in the world. A new consumer culture and domestic ideal became linked to American identity and Cold War politics. Within the U.S., challenges to the mainstream took the form of a new counter culture, the assertion of black citizenship, and the rise of feminism, each demanding participation in public life and a redefinition of the hierarchies of the past. In this course, we will look at the ways in which these conflicts at home and abroad have changed the ways Americans think about themselves as citizens and the place of our nation in the world.
Style: To be announced instructor will provide specific information
Grading: Grading will be determined by to be announced instructor

AMST 3253W American Popular Culture and Politics: 1940 to the Present
4 credit(s); Meets CLE req of Civic Life and Ethics; meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: In this course, we will examine how the United States changed since World War II as a result of domestic and international struggles, exploring the role popular culture played in this transformation. During these years the nation became an international power, altering the ways in which Americans understood their place in the world. A new consumer culture and domestic ideal became linked to American identity and Cold War politics. Within the U.S., challenges to the mainstream took the form of a new counter culture, the assertion of black citizenship, and the rise of feminism, each demanding participation in public life and a redefinition of the hierarchies of the past. In this course, we will look at the ways in which these conflicts at home and abroad have changed the ways Americans think about themselves as citizens and the place of our nation in the world.
Style: To be announced instructor will provide specific information
Grading: Grading will be determined by to be announced instructor

AMST 3402 American Indians and the Cinema
3 credit(s);
Instructor: Meland,Carter
Description: Student may contact the instructor or department for information.

AMST 3993 Directed Studies
1-9 credit(s), max credits 9, 1 completion allowed; prereq instr consent;
Instructor: STAFF
Description: Arrangements must be made with the professor who oversees the project.

AMST 4101 Gender, Sexuality, and Politics in America
3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Historical Perspectives;
Instructor: STAFF
Description: Ways public and private life intersect through the issues of gender, sexuality, family, politics, and public life; ways in which racial, ethnic, and class divisions have been manifest in the political ideologies affecting private life. Class time, workload, grading and exam format are determined by instructors. The focus of each instructor varies with the instructor's expertise.
Style: Will be determined by course instructor
Grading: Will be determined by instructor

AMST 4961 Proseminar I
3 credit(s); prereq AmSt jr or AmSt sr or instr consent ;
Instructor: Castellanos,Bianet

ANAT 3001 Human Anatomy
3 credit(s); prereq [BIOL 1002W or BIOL 1009 or BIOL 2002 or equiv], at least soph credit will not be granted if credit received for: Anat 3301/Anat 3301/Anat 3601/INMD 3001/INMD 3301; Credit will not be granted if credit has been received for: ANAT 3611;
Instructor: Bauer,G Eric
Description: Student may contact the instructor or department for information.

ANAT 4900 Directed Studies in Anatomy
S-N only, 1-6 credit(s), max credits 18, 3 completions allowed; prereq instr consent ;
Instructor: Weinhaus PhD,Anthony James
Description: Intended for students who have successfully completed ANAT 3001/ 3301 or ANAT 3601/ 3611 and have arranged to conduct an extensive research project with course director or have been selected as a Teaching Assistant. Requires course directors approval.
Style: 90% Laboratory. 10% Service Learning. At least 60 hours of laboratory required
Grading: S/N based upon hours completed in lab.
ANAT 6050 Dental Gross Anatomy
A-F only, 6.8 credit(s); prereq Dental student or instr consent;
Instructor: Cook, Mark S.
Description: Student may contact the instructor or department for information.

Instructor: Rozeboom, Kyle James
Description: Introduction to the compositional variation, processing, selection, storage, cookery, palatability, nutritional value, and safety of red meat, poultry, fish, and dairy products.

ANSC 1701 Historical Influence of the Horse on Society
3 credit(s); Meets CLE req of Historical Perspectives;
Instructor: Hathaway, Marcia R
Description: Student may contact the instructor or department for information.

ANSC 2055 Horse Management
2 credit(s);
Instructor: Ward, Christie
Description: Horse Health & Management: This course is designed to develop knowledge and practical skills related to general horse management and health maintenance through a combination of lectures, class discussions, student presentations, and hands-on skill development sessions. Management strategies will include lectures and labs on horse breeds and uses, anatomy and conformation, horse behavior, feeding management, and facility management. Time will also be devoted to an exploration of different career options and business opportunities in the horse industry. Strategies for prevention of disease will emphasize environmental hygiene, principles of good nutrition for horses, parasite control, and prevention of infectious disease through vaccination. Hands-on sessions are designed to develop practical skills such as body condition scoring, estimation of body weight, intramuscular injections, and bandaging techniques. Please note that this course will not provide extensive instruction in equine nutrition or the management of breeding stallions, pregnant mares, and foals. Comprehensive coverage of these subjects is available in ANSC 3007 Equine Nutrition (Dr. Marcia Hathaway, instructor), and VPM 3700 Equine Reproduction and Breeding Management (Dr. Scott Madill, instructor). These courses are offered in Spring Semester. NOTE: The combination of ANSC 2055 Horse Health Management and ANSC 3007 Equine Nutrition (Dr. Marcia Hathaway, instructor) meets the management requirement for Equine Option students.
Style: 60% Lecture, 10% Discussion, 20% Laboratory, 10% Small Group Activities.
Grading: Placements of classes and oral justification of placings.
Exam Format: Multiple choice, short answer, and true-false

ANSC 2055 Horse Management
2 credit(s);
Instructor: Martinson, Krishona Lynn
Description: Horse Health & Management: This course is designed to develop knowledge and practical skills related to general horse management and health maintenance through a combination of lectures, class discussions, student presentations, and hands-on skill development sessions. Management strategies will include lectures and labs on horse breeds and uses, anatomy and conformation, horse behavior, feeding management, and facility management. Time will also be devoted to an exploration of different career options and business opportunities in the horse industry. Strategies for prevention of disease will emphasize environmental hygiene, principles of good nutrition for horses, parasite control, and prevention of infectious disease through vaccination. Hands-on sessions are designed to develop practical skills such as body condition scoring, estimation of body weight, intramuscular injections, and bandaging techniques. Please note that this course will not provide extensive instruction in equine nutrition or the management of breeding stallions, pregnant mares, and foals. Comprehensive coverage of these subjects is available in ANSC 3007 Equine Nutrition (Dr. Marcia Hathaway, instructor), and VPM 3700 Equine Reproduction and Breeding Management (Dr. Scott Madill, instructor). These courses are offered in Spring Semester. NOTE: The combination of ANSC 2055 Horse Health Management and ANSC 3007 Equine Nutrition (Dr. Marcia Hathaway, instructor) meets the management requirement for Equine Option students.
Style: 60% Lecture, 10% Discussion, 20% Laboratory, 10% Small Group Activities.
Grading: Placements of classes and oral justification of placings.
Exam Format: Multiple choice, short answer, and true-false

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Style: 60% Lecture, 10% Discussion, 20% Laboratory, 10% Small Group Activities.

Grading: 40% mid exam, 20% final exam, 15% special projects, 15% quizzes, 10% class participation. Three group presentation projects (each worth 5% of the final grade) and three take-home assignments (each worth 5% of the final grade). Three exams, each worth 20% of the final grade.

Exam Format: Multiple-choice, short answer, and true-false.

ANSC 2401 Animal Nutrition
3 credit(s);
Instructor: Stern, Marshall D
Description: Introduction to the principles of animal nutrition discussed on a comparative species basis including classification and function of the various nutrients (carbohydrates, protein, lipids, minerals and vitamins); use of nutrients for body maintenance, growth, egg production, gestation, and lactation; comparative study of the digestive systems of farm animal species; nutrient requirements and allowances for farm animals. The course is targeted for undergraduates seeking an understanding of how feedstuffs are combined to meet the nutrient needs of animals and appreciate the practical application of nutrition to farm animals species.

Style: 100% Lecture.

Grading: 100% other evaluation. 5 EXAMS, WITH EACH EXAM WORTH 20% OF THE GRADE.

ANSC 3142 Advanced Livestock Judging
2 credit(s); prereq 2013 or instr consent;
Instructor: Rozeboom, Kyle James
Description: Student may contact the instructor or department for information.

ANSC 3221 Animal Breeding
4 credit(s);
Instructor: Seykora, Anthony James
Description: This course is the application of qualitative and quantitative genetic principals to animal breeding. Topics include Mendelian genetics, computation of genetic values from an individual’s own performance and relatives, selection indexes, inbreeding and relationships, crossbreeding and development of a breeding program. The laboratory portion of the course is held in the computer lab. Computer simulation programs enhance the learning experience of the students.

Style: 60% Lecture, 15% Discussion, 25% Laboratory.

Grading: 30% mid exam, 15% final exam, 15% special projects, 15% quizzes, 25% problem solving.

Exam Format: true-false, multiple choice, problem solving.

ANSC 3301 Human and Animal Physiology Laboratory
1 credit(s); prereq 3301 or Concurrent registration is required (or allowed) in 3301;
Instructor: Wheaton, Jonathan E
Description: Student may contact the instructor or department for information.

ANSC 3302 Human and Animal Physiology
3 credit(s); prereq BIOL 1009 or equiv.;
Instructor: Wheaton, Jonathan E
Description: This course is intended to provide students with an understanding of the basic principles of reproductive physiology emphasizing mammalian species. An introduction to the "chemical messengers" of reproduction— their synthesis, mechanism of action and regulation—will provide a foundation for a detailed study of topics, such as sexual differentiation, the functioning of the female and male reproductive systems, the physiology of pregnancy and birth, and reproductive senescence. These topics will be expanded to incorporate unique aspects of reproduction in domestic and wild animals and humans, along with relevant examples of the pathophysiology of reproductive diseases. The students will also be introduced to the current science and issues of applied reproductive biotechnologies. This course is targeted for undergraduate majors, pre-professionals and non-majors who want a better understanding of the basic and applied concepts of reproduction in animals and humans.

Style: 75% Lecture, 10% Discussion, 15% Laboratory.

Exam Format: Combination of short answer and multiple choice.

ANSC 3307 Artificial Insemination Techniques
S-N only, 1 credit(s); prereq instr consent;
Instructor: Seykora, Anthony James
Description: Hands-on training and techniques of artificial insemination in cattle at an off-campus laboratory setting. Proper techniques of AI and semen handling, and criteria for selection of bulls.

ANSC 3521 Biotechnology Applications in Pharmaceutical Research and Development
3 credit(s);
Instructor: Lepley, PhD, Robert
Description: Biotechnology Applications in Pharmaceutical R&D is taught in a manner that integrates basic concepts in cell and molecular biology, pharmacology, the FDA regulatory process, and pharmaceutical business models. Lectures emphasize the application of biotechnology to preclinical drug discovery and drug development process within the pharmaceutical and biotech industries. A global, macroeconomic perspective is used to provide insight into how biotechnology influences healthcare and food provisioning systems in countries other than the United States. The course draws upon scientists and management personnel within the biotech and pharmaceutical industries for lecture presentations and to mentor students in developing a written project focused on drug discovery.

Style: 70% Lecture, 20% Discussion. 10% Project Problem Solving

Grading: 20% special projects, 20% class participation. 60% exams and quizzes

Exam Format: multiple choice, true/false, short answer, essay

ANSC 3609 Business Planning for Animal Enterprises
2 credit(s);
Instructor: Rennau, Jeffrey Kimball
Description: Student may contact the instructor or department for information.

ANSC 4092 Special Problems in Animal Science
1-4 credit(s), max credits 4, 1 completion allowed; prereq instr consent;
Instructor: Seykora, Anthony James
Description: Independent study in an area of animal science, under supervision of faculty member.

Grading: 83% mid exam, 17% quizzes.

Exam Format: One essay-type exam, others are multiple choice.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Instructor(s)</th>
<th>Credits</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>ANSC 4096</td>
<td>Professional Experience Program: Internship</td>
<td>Student may contact the instructor or department for information.</td>
<td>realidad, Mary Louise</td>
<td>S-N only, 1-3 credit(s), max credits 6; prereq CFANS undergrad, instr consent, agreement form;</td>
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<td>ANSC 4096</td>
<td>Professional Experience Program: Internship</td>
<td>Student may contact the instructor or department for information.</td>
<td>Hansen, Leslie Bennett</td>
<td>S-N only, 1-3 credit(s), max credits 6; prereq CFANS undergrad, instr consent, agreement form;</td>
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<td>ANSC 4096</td>
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<td>Student may contact the instructor or department for information.</td>
<td>Noll, Sally Lee</td>
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<td>ANSC 4096</td>
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<td>Student may contact the instructor or department for information.</td>
<td>White, Michael Ernest</td>
<td>S-N only, 1-3 credit(s), max credits 6; prereq CFANS undergrad, instr consent, agreement form;</td>
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<td>ANSC 4096</td>
<td>Professional Experience Program: Internship</td>
<td>Student may contact the instructor or department for information.</td>
<td>Shurson, Gerald C</td>
<td>S-N only, 1-3 credit(s), max credits 6; prereq CFANS undergrad, instr consent, agreement form;</td>
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<tr>
<td>ANSC 4096</td>
<td>Professional Experience Program: Internship</td>
<td>Student may contact the instructor or department for information.</td>
<td>Hathaway, Marcia R</td>
<td>S-N only, 1-3 credit(s), max credits 6; prereq CFANS undergrad, instr consent, agreement form;</td>
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<tr>
<td>ANSC 4096</td>
<td>Professional Experience Program: Internship</td>
<td>Student may contact the instructor or department for information.</td>
<td>Robooboom, Gretchen Diane</td>
<td>S-N only, 1-3 credit(s), max credits 6; prereq CFANS undergrad, instr consent, agreement form;</td>
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<tr>
<td>ANSC 4099</td>
<td>Special Workshop in Animal Science</td>
<td>1-4 credit(s), max credits 24, 6 completions allowed;</td>
<td>Seykora, Anthony James</td>
<td>S-N only, 1-3 credit(s), max credits 6; prereq CFANS undergrad, instr consent, agreement form;</td>
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<tr>
<td>ANSC 4099</td>
<td>Special Workshop in Animal Science</td>
<td>Workshops on a variety of topics in animal science.</td>
<td>DiCostanzo, Alfredo</td>
<td>S-N only, 1-3 credit(s), max credits 6; prereq CFANS undergrad, instr consent, agreement form;</td>
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<tr>
<td>ANSC 4401</td>
<td>Swine Nutrition</td>
<td>3 credit(s); prereq 2401, 3511 recommended;</td>
<td>Shurson, Gerald C</td>
<td>S-N only, 1-3 credit(s), max credits 6; prereq CFANS undergrad, instr consent, agreement form;</td>
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ANSC 4404 Applied Dairy Nutrition
2 credit(s); prereq AnSc 4403 recommended;
Instructor: Linn, Jim
Description: This course is the application of fundamental nutrition principles (Animal Nutrition, AnSc 2401) and Ruminant Nutrition, AnSc 4403) to dairy cattle nutrition. The course will cover nutrient requirements of dairy cattle, feed ingredient selection and usage, formulation of lactating cow, dry cow and growing heifer diets using least cost and model computer programs. The course also will involve analysis of case study feeding programs used on dairy farms. Both undergraduate and graduate students who want a comprehensive practical understanding of nutrition programming on dairy farms are encouraged to enroll. The course will include discussion, lecture, and use of computers to formulate and evaluate dairy rations.
Style: 20% Lecture, 30% Discussion. Computer use to formulate and evaluate dairy rations
Grading: 20% final exam, 20% class participation, 60% problem solving.
Exam Format: Exams will be homework problems related to formulation or evaluation of dairy rations.

ANSC 4603 Beef Production Systems Management
4 credit(s); prereq Concurrent registration is required (or allowed) in 4613;
Instructor: DiCostanzo, Alfredo
Description: Student may contact the instructor or department for information.

ANSC 4613 Advanced Beef Production Systems Management
2 credit(s); prereq 4603;
Instructor: DiCostanzo, Alfredo
Description: Student may contact the instructor or department for information.

ANSC 4613 Advanced Beef Production Systems Management
2 credit(s); prereq 4603;
Instructor: DiCostanzo, Alfredo
Description: Half semester course. Student enterprise-analysis teams evaluate a beef cattle enterprise and contribute solutions to problems in areas of marketing, selection, reproduction, nutrition, or health management.

ANSC 5200 Statistical Genetics and Genomics
4 credit(s); prereq [Stat 3021 or equiv], [Biol 4003 or equiv]; Credit will not be granted if credit has been received for: CMB 5200;
Instructor: Da, Yang
Description: Student may contact the instructor or department for information.

ANSC 5700 Cell Physiology
A-F only, 4 credit(s); prereq [Two semesters of physics/chemistry, calculus, one semester of systems-level physiology] or instr consent;
Instructor: Palmer, Melissa L
Description: Student may contact the instructor or department for information.

ANSC 5700 Cell Physiology
A-F only, 4 credit(s); prereq [Two semesters of physics/chemistry, calculus, one semester of systems-level physiology] or instr consent;
Instructor: O'Grady, PhD, Scott M
Description: Student may contact the instructor or department for information.

ANSC 8134 Ethical Conduct of Animal Research
A-F only, 3 credit(s); prereq Grad student or prof school student or instr consent; Credit will not be granted if credit has been received for: CMB 8134;
Instructor: Molitor, Thomas William
Description: Student may contact the instructor or department for information.

ANSC 8194 Research in Animal Genetics
1-3 credit(s), max credits 3, 1 completion allowed; prereq instr consent;
Instructor: Hansen, Leslie Bennett
Description: Student may contact the instructor or department for information.

ANSC 8330 Concepts and Developments in Animal Nutrition
A-F only, 1-2 credit(s), max credits 2; prereq instr consent;
Instructor: Stern, Marshall D
Description: Student may contact the instructor or department for information.

ANSC 8344 Mechanisms of Hormone Action
2 credit(s); prereq Course in biochemistry or cell biology or instr consent;
Instructor: Mauro, PhD, Laura J.
Description: Student may contact the instructor or department for information.

ANSC 8510 Graduate Seminar
1 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Foster, Douglas N
Description: Student may contact the instructor or department for information.

ANTH 1001 Human Evolution
4 credit(s); Meets CLE req of Biological Sciences;
Instructor: Thompson, Robert Gordon
Description: Student may contact the instructor or department for information.

ANTH 1001 Human Evolution
4 credit(s); Meets CLE req of Biological Sciences;
Instructor: Hauff, Laura E
Description: Humans are unique in the animal world. In this class, we will take a journey through time to examine the evolution of humans, and how natural selection also shapes our own anatomy and behavior. Our goal is to reconstruct the evolutionary history of our lineage, and the anatomy and behavior of our ancestors. The first half of the course is based firmly in the present, and will give you a strong background in evolutionary theory: Natural Selection, basic genetics, principles of behavioral biology and the comparative anatomy of living organisms (primarily monkeys and apes). In the second half of the course we will reconstruct the ecology, diet, anatomy, locomotion, and even the social behavior of the hominids (human ancestors) using the evolutionary principles learned in the first half of the course. Among the "big questions in human evolution" that we will address are: What were the earliest hominids, the australopithecines, like? How did climate change affect macro- and micro-evolutionary patterns? How does tool use and culture feed back upon our bodies? How far back in time does modern human behavior date, and what is the evidence for it? When and where did our species, Homo sapiens, in its modern form, originate? While learning the most up-to-date synthesis of paleoanthropology’s answers to these questions, students in this course will also learn first-hand how to apply the analytical methods used by paleoanthropologists.
Style: 50% Lecture, 50% Laboratory.
Grading: 35% mid exam, 20% final exam, 30% laboratory evaluation, 15% other evaluation. In-class active-learning assignments
Exam Format: multiple choice

ANTH 1001 Human Evolution
4 credit(s); Meets CLE req of Biological Sciences;
Instructor: Tostevin, Gilbert B
Description: Humans are unique in the animal world. In this class, we will take a journey through time to examine the
evolution of humans, and how natural selection also shapes our own anatomy and behavior. Our goal is to reconstruct the evolutionary history of our lineage, and the anatomy and behavior of our ancestors. The first half of the course is based firmly in the present, and will give you a strong background in evolutionary theory: Natural Selection, basic genetics, principles of behavioral biology and the comparative anatomy of living organisms (primarily monkeys and apes). In the second half of the course we will reconstruct the ecology, diet, anatomy, locomotion, and even the social behavior of the hominids (human ancestors) using the evolutionary principles learned in the first half of the course. Among the "big questions in human evolution" that we will address are: What were the earliest hominids, the australopithecines, like? How did climate change affect macro- and micro-evolutionary patterns? How does tool use and culture feed back upon our bodies? How far back in time does modern human behavior date, and what is the evidence for it? When and where did our species, Homo sapiens, in its modern form, originate? While learning the most up-to-date synthesis of paleoanthropology's answers to these questions, students in this course will also learn first-hand how to apply the analytical methods used by paleoanthropologists.

**ANTH 1003W Understanding Cultures: Honors**
4 credit(s); prerequisite honors; meets CLE req of Global Perspectives; meets CLE req of Social Sciences; meets CLE req of Writing Intensive;
Instructor: Dean, Diana M
Description: Student may contact the instructor or department for information.

**ANTH 1003W Understanding Cultures**
4 credit(s); meets CLE req of Global Perspectives; meets CLE req of Social Sciences; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Introduction to social and cultural anthropology for undergraduate majors and non-majors. Comparative study of societies and cultures around the world. Topics include adaptive strategies; economic processes; kinship, marriage and gender, social stratification; politics and conflict; religion and ritual; personality and culture. We will survey a variety of human cultures and explore theories about the evolution, function and meaning of culture.
Style: 75% Lecture, 25% Discussion.
Exam Format: multiple choice; essay

**ANTH 1005W Introduction to Cultural Diversity and the World System**
4 credit(s); meets CLE req of Global Perspectives; meets CLE req of Social Sciences; meets CLE req of Writing Intensive;
Instructor: Lipsen, David M
Description: This course will focus on relations between culture and the globalization process. How are migration, communication, and global capitalism changing local understandings of identity, ways of life, etc.? The course will look at peoples and cultures inside and outside of the U.S. It is an introductory course in cultural anthropology which targets both students seeking to fulfill CLE requirements and prospective majors. Teaching will involve lecture format, multi-media presentations and active learning in recitation sections. The books will include the textbook, such as "On Being Different" by Kottak and a reader, such as "Talking About People" by Howland and Gordon, eds. There will also be two writing assignments, based on such books as "New Pioneers in the Heartland: Hmong Life in Wisconsin," by Koltyk. In addition, there will be three multiple choice mid-terms.
Style: 50% Lecture, 25% Discussion. video presentations
Grading: 60% mid exam, 20% final exam, 20% reports/papers, also 10% class participation and 10% lab work

**ANTH 1910W Freshman Seminar: Roots Music in American Culture and Society**
A-F only, 3 credit(s), max credits 6; prerequisite freshman; meets CLE req of Writing Intensive;
Instructor: Raheja, Gloria Goodwin
Description: Student may contact the instructor or department for information.

**ANTH 3001 Introduction to Archaeology**
4 credit(s); meets CLE req of Social Sciences;
Instructor: Monnier, Gilliane F
Description: Archaeology is the study of humans in the past. It seeks to answer fundamental questions, such as "when did humans first become dependent on fire??, "what factors led to the development of agriculture?? or "how can we explain the rise and fall of early civilizations?? The study of each of these big questions relies on answering many small questions that are asked in the context of excavations and other archaeological analyses. The aim of this class is to provide an understanding of the methods and techniques used by archaeologists in investigating these questions. It includes not only hands-on learning of specific analytical techniques, such as faunal and lithic analysis, site survey and excavation strategy, but also focuses on the theoretical approaches that guide the questions archaeologists ask and the methods they use to answer them. This class, therefore, prepares students for more advanced classes in the discipline. It also requires students to think about how data are interpreted and how these interpretations are shaped by theoretical frameworks and archaeologists' worldviews. Devising solutions to interpretive problems requires the creative application of multidisciplinary approaches. Ultimately, the study of archaeology leads to a new way of thinking about and doing science.
Style: 90% Lecture, 5% Film/Video, 5% Guest Speakers.
Grading: 45% mid exam, 25% final exam, 25% laboratory evaluation, 5% other evaluation. Active Learning Assignments are worth 5% of the final grade.
Exam Format: Exams are multiple-choice and short-answer.

**ANTH 3003 Cultural Anthropology**
3 credit(s); Credit will not be granted if credit has been received for: GLOS 3003;
Instructor: Raheja, Gloria Goodwin
Description: Student may contact the instructor or department for information.

**ANTH 3004 Great Controversies in Anthropology**
A-F only, 3 credit(s); meets CLE req of Global Perspectives; meets CLE req of Social Sciences;
Instructor: Gudeman, Stephen Frederick
Description: Anthropology has been home to famous controversies about human behavior, reason and behavior. We will explore six heated controversies that revolve around topics such as "facts," gender, "truth," poverty and deception. For example, should the famous Margaret Mead have believed Samoan girls when they talked about their sexual lives? Whose "voices" should be heard when determining the facts? After examining a controversy, we will divide into two sides, debate the issues and then try to reach a judicious perspective. Student participation will play a central role in our explorations into the seamy edges of anthropology, ourselves and other cultures.
Style: 40% Lecture, 50% Discussion. Films
Grading: 55% mid exam, 35% reports/papers, 10% class participation.
Exam Format: Essay

**ANTH 3021W Anthropology of the Middle East**
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: ANTH 5021W; Meets CLE req of Global Perspectives; meets CLE req of Social Sciences; meets CLE req of Writing Intensive;
Instructor: Beeman, William O

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Description: This course will focus on anthropological methods of analyzing and interpreting Middle Eastern cultures and societies. The study of kinship, tribal structure, social organization, and group relations will be fundamental techniques in the analysis of Middle Eastern society, but these are rarely dealt with in the traditional Middle East studies curriculum. Although Judaic, Christian and Zoroastrian traditions are important for shaping Middle Eastern life, and will be dealt with during the course, the Middle East as a unified culture area is dependent on Islamic civilization. Therefore Islamic culture will be given the greatest emphasis in readings and lectures. In this course, particular emphasis will be placed on the examination of literary elements in Middle Eastern life from pre-Islamic times to the present. The historical development of ritual practice in Islam will constitute a primary focus. This seminar will have a significant research component, with opportunities for the presentation of original research on the topics covered. One principal aim of the course is to help you understand Middle Eastern culture as an "insider" with all of the normal cultural understandings a person born and raised in the region would have. The Course will be divided into two sections: I. Cultural Heritage of the Middle East II. Traditional Middle Eastern Society and its Modern Forms.

Style: 60% Lecture, 20% Film/Video, 10% Discussion, 10% Guest Speakers.

Grading: 20% mid exam, 30% reports/papers, 40% special projects, 10% class participation. The course will have a final research paper rather than a final exam. This is the 40% special projects grade reflected above. There will be two short papers, each of which will count for 15% of the grade for a total of 30%.

Exam Format: The Mid-term examination will consist of short answers, a geography quiz and three short essays.

ANTH 3027W Archaeology of Prehistoric Europe
3 credit(s); Credit will not be granted if credit has been received for: ANTH 5027W; Meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive.

Instructor: Wells, Peter S

Description: Survey of the archaeology of Europe, from the earliest evidence of human presence about one million years ago to the Roman conquest of about two thousand years ago. Major topics include the development of art in the Early Stone Age, adoption of agriculture and village life during the Neolithic, early metallurgy and long-distance trade during the Bronze Age, and formation of cities in the Iron Age.

Style: 95% Lecture, 5% Discussion.

Grading: 30% mid exam, 25% final exam, 40% reports/papers, 5% quizzes.

ANTH 3028 Introduction to Historical Archaeology
A-F only, 3 credit(s);

Instructor: Hayes, Katherine F. H.

Description: In this course we will explore the theories and methods of historical archaeology. In particular we will consider what is it that distinguished historical archaeology from the broader discipline, and how those differences are parlayed into specific research strengths. This includes several themes: colonialism; the modern world and globalizing economies; social identities (race and ethnicity, class, sex and gender, religion, age); social memory and commemoration; landscapes and social space; citizenship and subjectivity. Although historical archaeology until recently has been restrictively defined as addressing the European-colonized New World, the discipline in the past ten years has significantly broadened its scope and impact on the practice of archaeology as a whole. Throughout the course we will discuss these developments, and what directions archaeology may take in the future as a result. Course work includes both reading/discussion and learning methods through practical exercises.

Style: 50% Lecture, 30% Discussion, 20% Laboratory.

Grading: 20% mid exam, 20% final exam, 20% special projects, 20% class participation, 20% laboratory evaluation.

ANTH 3031 Altering States: After Communism
3 credit(s);

Instructor: Kaiser, Sara

Description: Since the fall of the Berlin Wall, the disintegration of state socialism, and the end of the Cold War, Central-Eastern Europe and the former Soviet Union have undergone an expedited process of political-economic and therefore social-cultural transformation(s). This historical event marked not only the fall of state socialism but also offered a new intellectual ground in the rediscovery of the European "Others" in political, economic and social-cultural discourses. Our undergraduate course examines these intellectual responses and diverse hypotheses of the socialist past, post-socialist present and the future of the Europeanized Union of the former Eastern Block. Our materials on "actually existing socialism" (Bahro) and actually existing post/socialism concentrate on what kind of meanings people had attributed to the changes in the micro-politics of their daily life and how they used the "weapons of the weak" (Scott) while testing and experiencing these sometimes dramatic changes. How have these changes influenced social life such as people's national identity, subjectivity, ethnicity, gender, etc.? The materials are drawn mainly from anthropology but also from political science, history, journalism, film and literature. The objective of the course is not only to learn about socialism(s), post-socialism(s) and Europeanized Union(s) but also to critically investigate capitalism(s) today.

ANTH 3035 Anthropologies of Death
A-F only, 3 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Social Sciences; Perspectivism; meets CLE req of Writing Intensive.

Instructor: Langford, Edward D.

Description: In this course we explore death from anthropological, historical, and cultural studies perspectives. We consider and discuss death rites, mourning practices, treatments of dead bodies, understandings of afterlife, and relationships with the dead within different social and political contexts. We pay particular attention to how these practices are informed and transformed by historical conditions and conflicts. We also discuss the medicalization of death in the modern world, addressing some of the recent shifts and controversies related to biological definitions of death and cultural interpretations of what constitutes "good" or "natural" death. We explore the responses to contemporary bioethics of death on the part of various cultural communities. Finally we consider overtly politicized deaths, including the deaths of public figures and deaths due to political violence. We investigate the ways that the dead are recruited for contemporary national or community agendas, becoming voices for concerns about violence, alienation and injustice. The objective of the course is to reflect on the social and political meanings of death and to understand how ideas and practices related to death are shaped by historical experience. Texts and Readings include Passed on: African American Mourning Stories by Karla FC Holloway, Mourning and Melancholia by Sigmund Freud, A Contribution to the Study of the Collective Representation of Death by Robert Hertz, excerpts from The Last Word: Women, Death and Divination in Inner Mani by Nadia Seremetakis, excerpts from Death Without Weeping by Nancy Scheper-Hughes, excerpts from Western Attitudes Toward Death by Philippe Aries, excerpts from ...And A Time to Die: How the Dead Within Different Social and Political Contexts. The class is largely constructed around large and small group discussion, with brief lectures.

Style: 20% Lecture, 10% Film/Video, 50% Discussion, 20% Small Group Activites.

Grading: 30% final exam, 30% reports/papers, 10% in-class presentation, 30% class participation.

Exam Format: Take-home short essay exam.

ANTH 3402 Zooarchaeology Laboratory
A-F only, 3 credit(s);

Instructor: Tappen, Martha

Description: This is an introduction to the study of zooarchaeology, the discipline that examines the animals on which ancient human societies depended. It is an applied field that is becoming extremely relevant to modern society's understanding of archaeological remains and their scientific study. This course is primarily a laboratory course but the sessions also include lectures and field trips. The first part of the course covers basic laboratory techniques including bone preparation and identification of bone elements. The second part of the course consists of laboratory projects based on an actual site from the Twin Cities region.
ANTH 3980 Topics in Anthropology: American Indian Women: Ethnohistorical Perspective
3 credit(s), max credits 6;
Instructor: Albers, Patricia
Description: Student may contact the instructor or department for information.

ANTH 3980 Topics in Anthropology: American Indians and Photography
3 credit(s), max credits 6;
Instructor: Albers, Patricia
Description: Student may contact the instructor or department for information.

ANTH 3980 Topics in Anthropology: Global Migration and Photography
3 credit(s), max credits 6;
Instructor: Wolbert, Barbara
Description: Virginia Woolf described fiction as a spider's web, attached - however slightly - to life at its four corners. If the web is pulled from its moorings it collapses into a sticky mass, yet to look only to the places and ways it attaches to the wall of reality is to miss the complexity of the web itself. This class teaches students to explore and enjoy the intricacies of the web of fiction without losing sight of the structures that hold it up. Among the questions we ask are: What is the relation between the nation and the literature produced within it? How do emerging nations enlist literature in their claims for nationhood? How does the institution of literature underpin Empire? How does gender, as an organizing principle of identity, inflect literary representations of the nation? We will examine these questions in relation to novels and other literary forms. The course is also designed to familiarize students with the conventions and inner workings of literary texts. A major goal of the course is to give interdisciplinary students in GWSS and Global Studies, much of whose curriculum leans toward the empirical and theoretical world of the social sciences, the tools to understand the pleasure of reading, the way the literary text works, and its privileged position as an apparatus of representation. Among the works we will read are: Salman Rushdie, _Midnight's Children_, Gabriel Garcia Marquez, _One Hundred Years of Solitude_, Isabel Allende, _House of the Spirits_, Chinua Achebe, _Things Fall Apart_, Buchi Emecheta, _The Joys of Motherhood_, Rosario Ferre, _The Youngest Doll_.

ANTH 3980 Topics in Anthropology: Art, Politics, and Diversity in Post-Wall Germany
3 credit(s), max credits 6;
Instructor: Wolbert, Barbara
Description: In this course on the intersection of visual cultural studies and German and European studies, we will focus on art events and cultural institutions - such as exhibitions and museums - in the context of globalization. We will deal with the representation of racial, national, cultural and religious diversity and its representation in the public sphere. In particular, we will concentrate on a variety of forms of expressive culture on the politics of exclusion and inclusion in German art worlds. We will describe the appropriation of concepts such as integration and multiculturalism into political discourses in Germany. Through exhibits of art referred to as "international art", "global art", "ethnic art", "Non-Western art", we will analyze the notion of otherness at a particular point in time and critically examine German cultural politics. Thus, we will take a critical view of visual culture, political power and alterity. The course addresses this issue from a diachronic perspective: our discussions will follow a sequence of art exhibition cases from Imperial Germany, the Weimar Republic, Nazi Germany, the Cold War Germany and Unified Germany. While the selection of catalogs and slides from art exhibition sites focuses on the German case, the theoretical readings allow a more general introduction to German studies, cultural studies, and visual studies. You may take this course as an introduction to German cultural politics; it may also serve the interests and needs of students who are seeking to expand their knowledge of German culture and politics. This course aims furthermore at broadening your understanding of the place and role of art in society and raising your awareness of diversity issues and questions of representation. Working not only with texts, but also studying displays on site and dealing with visual images, you will be encouraged to formulate descriptions carefully, develop your own interpretations, and critically make use of the readings.
Style: 50% Lecture, 25% Discussion, 20% Student Presentation, 5% Field Trips.
Grading: 10% mid exam, 20% final exam, 40% reports/papers, 15% in-class presentation, 15% class participation.
Exam Format: Mid term: open questions/short answers expected; final exam: essay form (take-home exam).

ANTH 4009W Warfare and Human Evolution
A-F only, 3 credit(s);
Instructor: Wilson, Michael Lawrence
Description: Student may contact the instructor or department for information.

ANTH 4023W Culture Theory
A-F only, 3 credit(s); prereq Jr or sr or grad or instr consent;
Meets CLE req of Writing Intensive;
Instructor: Penn, Mischa
Description: Student may contact the instructor or department for information.

ANTH 4025 Studies in Ethnographic Classics
A-F only, 3 credit(s); prereq 1003 or 1005;
Instructor: Song, Hoon
Description: This course explores the forms of understanding and representation that define the project of ethnography. In order to grasp what is at stake in the writing practices that constitute ethnography, the course examines various themes and problems as they have been taken up by writers with different epistemological, disciplinary and aesthetic commitments. Thus, we consider how differently oriented anthropologists as well as historians and novelists, poets and playwrights have approached social phenomena. What kinds of knowledge are conveyed in what forms? What kinds of understanding are permitted by what acts of imagination? What kinds of truths are communicable through what kinds of textual practices? What theoretical assumptions underlie a choice of representational practice? And what are the ethical risks that attend such choices? These are the questions that will guide us.

ANTH 4031W Anthropology and Social Justice
4 credit(s); prereq 1003 or 1005 or 4003 or grad student or instr consent;
Meets CLE req of Writing Intensive;
Instructor: Dean, Diana M
Description: Student may contact the instructor or department for information.

ANTH 4047 Anthropology of American Culture
3 credit(s); Meets CLE req of Social Sciences;
Instructor: Ho, Karen Z
Description: This course will explore American cultures and values through an examination of race/ethnic, gender, and class relations, and cultural politics in the 21st century. We will focus on the transnational and heterogeneous histories and relationships among multiple communities such as African Americans, whites, Asian Americans, Latinos, and Native Americans. We will also focus on the workings and the changing cultural values of the U.S. by examining a variety of sites and situations such as the workplace and the economy, immigration, family, the urban environment, poverty, multiculturalism, and globalization. We will explore a variety of American identities, communities, and institutions as pivotal sites to understand the dynamics of race/ethnicity, class, gender, and sexuality. This course is interdisciplinary, as it draws from anthropology, ethnic studies, American Studies, sociology, urban and global studies, history, and film. This course is intended for undergraduate majors as well as non-majors.
Style: 30% Lecture, 70% Discussion.
Grading: 25% mid exam, 35% final exam, 15% in-class presentation, 25% class participation.

ANTH 4053 Economy, Culture, and Critique
ANTH 5021W Ethnographies of Science
A-F only, 3 credit(s); prereq Sr or grad student or instr consent ; Meets CLE req of Writing Intensive;
Instructor: Langford, Jean M
Description: In this course we will explore issues in science and technology studies, with an emphasis on ethnographic accounts of scientific practice and on examinations of the differences in scientific practice at a variety of U.S. and international sites. Questions addressed by the course include the following: What are some of the sociocultural influences in the development of scientific epistemologies and methods? How are scientific facts constructed and negotiated and disseminated? Who are the agents involved in scientific knowledge production? How is science translated for and interpreted by non-scientific communities? In what ways does science frame the relationships between humans and non-humans? What does it mean to study science ethnographically and what do we learn by doing so? How do scientific projects articulate with discourses and hierarchies of race, nationality, and gender? How is science deployed, reinterpreted and resisted outside of Europe and North American centers of scientific authority? In what ways is science implicated in particular political agendas and struggles? What is the place of imagination in scientific encounters with the world? The course is conducted as seminar with discussion of readings accompanied by films. Readings will include Biocapital: The Constitution of Postgenomic Life by Kaushik Sunder Rajan Wild Profusion: Biodiversity Conservation in an Indonesian Archipelago by Celia Lowe, The Nuclear Borderlands: The Manhattan Project in Post-Cold War New Mexico by Joseph Masco, When Nature Goes Public: The Making and Unmaking of Bioprospecting in Mexico, We Have Never Been Modern by Bruno Latour, and articles by Lorraine Daston, Donna Haraway, Michel Serres, Hugh Raffles, Gyan Prakash, Joseph Dumit, Ian Hacking, and others. Style: 10% Film/Video, 75% Discussion, 15% Student Presentation. Grading: 75% reports/papers, 25% class participation.

ANTH 5027W Origins of European Civilization
3 credit(s); Credit will not be granted if credit has been received for: ANTH 3027W; Meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;
Instructor: Wells, Peter S
Description: Survey of the archaeology of Europe, from the earliest evidence of human presence about one million years ago to the Roman conquest of about two thousand years ago. Major topics include the development of art in the Early Stone Age, adoption of agriculture and village life during the Neolithic, early metallurgy and long-distance trade during the Bronze Age, and formation of cities in the Iron Age. Style: 85% Lecture, 5% Discussion. Grading: 30% mid exam, 25% final exam, 40% reports/papers, 5% quizzes.

ANTH 4071 Race, Culture, and Vision
A-F only, 3 credit(s); prereq 1003 or 1005 or 3003 or instr consent ; Instructor: Song, Hoon
Description: What do we see when we look at a photograph, a painting, or someone's face? How do we come to understand that vision is a source of evidence for what the world or a person is like? How do past experiences with objects, people, and language shape our understanding of what it means to 'see' something? In short, how do the particular societies and cultures in which we live shape how we come 'to see' the world and people around us? In this class we will explore how culture shapes the ways in which people see the world. We will begin by examining some of the historical practices, technologies, and beliefs that have determined how Western European societies and cultures have come to value vision as the most 'noble' of the senses. We will then examine how 'race' as a visual evidence came to its prominence as a way of categorizing people. The course concludes by exploring how some non-European societies think about the senses, and how the use of visual images as forms of evidence varies cross-culturally. How, then, would 'race' fair as an evidential category in the non-European cultures? Style: 70% Lecture, 30% Discussion. Grading: 20% mid exam, 30% reports/papers, 20% in-class presentation, 30% class participation. Exam Format: Short answer and essays.

ANTH 5021W Anthropology of the Middle East
3 credit(s); Credit will not be granted if credit has been received for: ANTH 3021W; Meets CLE req of Global Perspectives; meets CLE req of Social Sciences; meets CLE req of Writing Intensive;
Instructor: Beeman, William O
Description: This course will focus on anthropological methods of analyzing and interpreting Middle Eastern cultures and societies. The study of kinship, tribal structure, social organization and ethnic group relations are all fundamental techniques in the analysis of Middle Eastern society, but these are rarely dealt with in the traditional Middle East studies curriculum. Although Judaic, Christian and Zoroastrian traditions are important for shaping Middle Eastern life, and will be dealt with during the course, the Middle East as a unified culture area is dependent on Islamic civilization. Therefore Islamic culture will be given the greatest emphasis in readings and lectures. In this course, particular emphasis will be placed on the examination of literary elements in Middle Eastern life from pre-Islamic times to the present. The historical development of ritual practice in Islam will constitute a primary focus. This seminar will have a significant research component, with opportunities for the presentation of original research on the topics covered. One principal aim of the course is to help you understand Middle Eastern culture as an 'insider' with all of the normal cultural understandings a person born and raised in the region should have. The Course will be divided into two sections: I. Cultural Heritage of the Middle East II. Traditional Middle Eastern Society and its Modern Forms. Style: 60% Lecture, 20% Film/Video, 10% Discussion, 10% Guest Speakers.
Grading: 20% mid exam, 30% reports/papers, 40% special projects, 10% class participation. The course will have a final research paper rather than a final exam. This is the 40% special projects grade reflected above. There will be three short papers, each of which will count for 15% of the grade for a total of 30% Exam Format: The Mid-term examination will consist of short answers, a geography quiz and three short essays.

ANTH 5022W Technology and the Human Body
3 credit(s); Credit will not be granted if credit has been received for: ANTH 3022W; Meets CLE req of Historical Perspectives; Instructor: Gudeman, Stephen Frederick
Description: Human bodies are inherently political and vulnerable to domination. In this course we will explore how culture and technology have demanded that we rethink our analytical approaches. How do scientific projects articulate with discourses and hierarchies of race, nationality, and gender? How is science ethnographically and what do we learn by doing so? How do scientific projects articulate with discourses and hierarchies of race, nationality, and gender? How is science deployed, reinterpreted and resisted outside of Europe and North American centers of scientific authority? In what ways is science implicated in particular political agendas and struggles? What is the place of imagination in scientific encounters with the world? The course is conducted as seminar with discussion of readings accompanied by films. Readings will include Biocapital: The Constitution of Postgenomic Life by Kaushik Sunder Rajan Wild Profusion: Biodiversity Conservation in an Indonesian Archipelago by Celia Lowe, The Nuclear Borderlands: The Manhattan Project in Post-Cold War New Mexico by Joseph Masco, When Nature Goes Public: The Making and Unmaking of Bioprospecting in Mexico, We Have Never Been Modern by Bruno Latour, and articles by Lorraine Daston, Donna Haraway, Michel Serres, Hugh Raffles, Gyan Prakash, Joseph Dumit, Ian Hacking, and others. Style: 95% Lecture, 5% Discussion. Grading: 60% Lecture, 20% Film/Video, 10% Discussion, 10% Style: 10% Film/Video, 75% Discussion, 15% Student Presentation. Grading: 75% reports/papers, 25% class participation.
ANTH 5221 Anthropology of Material Culture
A-F only, 3 credit(s);
Instructor: Tostevin,Gilbert B
Description: This is an odd trinket kept on the family mantelpiece to the offerings left at the Vietnam Memorial (not to mention the Wall itself), people feel the desire to commemorate and make physical many of the personal and societal events experienced in their lives. This is just one example of how material culture is a social creation. By examining the social aspect of material culture in both past and present societies, one gains a better understanding of what it means to be human in a world in which the importance of material culture appears to be increasing at an astronomical rate. In fact, this examination suggests that the human propensity to allocate social meaning to material objects actually played a pivotal role in the evolution of both the human brain and human social structures. This course explores the many perspectives from which anthropologists study material culture. As the course explores material culture through three of the four subfields of anthropology, it serves as an excellent introduction to anthropological thought as well as an opportunity for more advanced students to broaden their research and theoretical horizons. Specifically, material culture will be viewed from the perspectives of social anthropology (particularly with regard to issues of social memory, commoditization, and cultural representation in museums), historical archaeology, prehistorical archaeology, the French ethnological school of technology, and primatology.
Style: 30% Lecture, 50% Discussion, films
Grading: 25% mid exam, 25% final exam, 30% class participation, 25% other evaluation. research paper
Exam Format: essay and short answer

ANTH 5244 Interpreting Ancient Bone
A-F only, 4 credit(s); prereq 1001; Credit will not be granted if credit has been received for: ANTH 8244;
Instructor: Tappen,Martha
Description: This seminar designed to provide a venue for reviewing current and classic literature on interpreting the fossil and archaeological records using information from bones of humans and of other animals, and includes topics in paleoanthropology; zooarchaeology; reconstruction of past environments using vertebrate taxonomy and ecomorphology; and site formation processes. This is not a laboratory class, but rather one based on literature. ANTH 3402/5402
Zooarchaeology Laboratory is a complementary course (but not a required prerequisite for this class). Topics such as interpreting life history and ages of death of hominins and prey, hunting techniques/scavenging, species profiles, comparative site analysis, clues of ancient social structures, and preservation issues and bone quantification techniques will be covered. The bulk of the work in this class will be weekly readings and discussion. Each week all students will read assigned articles in common on the main topic of the week, and in addition one other article that they are solely responsible for bringing to the discussion. Students will present site reports and write a paper on a related topic of their choice.
Style: 20% Lecture, 60% Discussion, 20% Laboratory
Grading: 25% reports/papers, 25% special projects, 50% class participation. Papers and site reports will be presented to the class.

ANTH 5255 Archaeology of Religion
3 credit(s);
Instructor: Soderberg,John A
Description: Student may contact the instructor or department for information.

ANTH 5402 Zooarchaeology Laboratory
A-F only, 3 credit(s);
Instructor: Tappen,Martha
Description: 25% Lecture, 50% Laboratory, 10% Student Presentation.

ANTH 5442 Archaeology of the British Isles
A-F only, 3 credit(s);
Instructor: Wells,Peter S
Description: This course examines the archaeology of the British Isles, with an emphasis on Great Britain. The seminar covers the history of archaeology, as well as the material remains of societies that inhabited the British Isles from some 700,000 years ago to the present. Among the periods covered are the Neolithic, the Bronze Age, the Iron Age, the Roman Period, and the early Middle Ages. Different interpretations of the archaeological material are considered.
Style: 100% Discussion.
Grading: 35% special projects, 55% in-class presentation, 10% class participation.

ANTH 5980 Topics in Anthropology: Psychological Anthropology
3 credit(s), max credits 6;
Instructor: Albers,Patricia
Description: Course description Investigating in particular the significance of photographs in coping with migration, this course touches upon a central feature of photography?its ability to make present the absent. Rather than as recipients of images produced by mass media we look at immigrants as producers of images: Our point of departure is the socially extremely effective and site formation processes. This is not a laboratory class, but rather one based on literature. ANTH 3402/5402
Zooarchaeology Laboratory is a complementary course (but not a required prerequisite for this class). Topics such as interpreting life history and ages of death of hominins and prey, hunting techniques/scavenging, species profiles, comparative site analysis, clues of ancient social structures, and preservation issues and bone quantification techniques will be covered. The bulk of the work in this class will be weekly readings and discussion. Each week all students will read assigned articles in common on the main topic of the week, and in addition one other article that they are solely responsible for bringing to the discussion. Students will present site reports and write a paper on a related topic of their choice.
Style: 20% Lecture, 60% Discussion, 20% Laboratory
Grading: 25% reports/papers, 25% special projects, 50% class participation. Papers and site reports will be presented to the class.

ANTH 5980 Topics in Anthropology: American Indians and Photography
3 credit(s), max credits 6;
Instructor: Albers,Patricia
Description: Course description Investigating in particular the significance of photographs in coping with migration, this course touches upon a central feature of photography?its ability to make present the absent. Rather than as recipients of images produced by mass media we look at immigrants as producers of images: Our point of departure is the socially extremely effective and often-underestimated individual image production. We will focus on private photographs, on photos taken, owned and circulated by migrants. These photographs, which may or may not depict immigrants, refugees or displaced persons open insights into immigrants? lives on multiple levels. Beyond the study of the narratives of those who are in the photo and of those, who took it and who hold on to it, the study of practices of collecting, framing, and displaying of photographs allows us to better understand processes of identification. By comparing earlier photograph collections of migrant families to more recent snapshots - analogue and digital - as well as video, internet, and mobile phone practices, we will explore immigrants? changing sense of place and their migratory concepts. We will hence discuss legacies of first generations of immigrants and constructions of neighborhoods, real and virtual. In a second step we juxtapose these visual practices with visual representations of migration in the press and other mass media, using them as a key to public discourses on migration, shaping immigration policies and integration politics. Objectives and Topics The course will enhance the students? sensitivity for the relation between text and images. It will be based on the analysis of images, the discussion of theoretical essays and on students? case studies that aims at analyzing family photographs and their social uses. These case studies are based on individually

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
designed intensive short-term fieldwork projects, conducted and supervised during the semester. Presentations of the results of students? case studies will complete the course work. The case studies will relate to the course readings, they will serve as an individually scheduled training program in the analysis of photographs. The course will thus guide the students in studying vernacular forms of expressive culture and in conducting narrative interviews and encourage them to articulate themselves both through words and the use of images. This course on the social use of photography in the context of global migration thus bridges between migration research and media studies. Concerned with questions of migrants? visual communication, memory, and representation, it covers basic concepts of visual cultural studies and fieldwork techniques. Style: 40% Lecture, 5% Film/Video, 40% Discussion, 10% Student Presentation, 5% Field Trips. Grading: 55% reports/papers, 10% special projects, 5% quizzes, 15% in-class presentation, 15% class participation. Homework assignments, fieldwork notes and other notes related to the coursework may be submitted for extra credit (-0.5 of final grade)

ANTH 5980 Topics in Anthropology: Art, Politics, and Diversity in Post-Wall Germany
3 credit(s), max credits 6;
Instructor: Wolbert, Barbara
Description: Student may contact the instructor or department for information.

ANTH 5990 Topics in Archaeology: Introduction to Historical Archaeology
A-F only, 3 credit(s), max credits 9, 3 completions allowed;
prereq instr consent;
Instructor: Hayes, Katherine F. H.
Description: Graduate-level coursework in Historical Archaeology (see description for 3028 for course content); will require students to complete an independent research project on a topic approved by instructor. This research may be site-based, or focused on a specific type of material culture, and must be problem-oriented. Final products of the research will be a 15-20 page written paper, and an in-class presentation.

ANTH 8004 Foundations of Anthropological Archaeology
3 credit(s); prereq 8001, 8002;
Instructor: Hayes, Katherine F. H.
Description: This seminar will introduce archaeological theory, in a historical perspective on the major developments and debates in the field. We will review the approaches that have been labeled culture-historical, processual, and post-processual; the methodological and interpretive implications of these approaches; and the intellectual issues shaping current archaeological discourse. In addition, we will explore the relationship of archaeological practice to the construction and reproduction of heritage. Throughout this seminar, the implications of these theoretical approaches to research design will be discussed.

ANTH 8005 Linguistic Anthropology
3 credit(s);
Instructor: Beeman, William O
Description: This course will be a seminar providing an introduction to the literature of Anthropological Linguistics for graduate students. The course takes an historical approach starting with the 19th Century antecedents of modern linguistics, and tracing the history of anthropological linguistic thought from Franz Boas to modern linguistic anthropologists. Topics such as the use of linguistic analysis for archaeology, the Sapir-Whorf hypothesis (the relationship between language and cognitive functions), ethnography of language, discourse analysis, sociolinguistic theory and performance theory will be covered. The course will also deal briefly with the biology of language. Students wishing a more extensive introduction to the evolution and biology of language should enroll in ANTH5021W. The course will have three short written essays (5-8 pages) during the semester. Students will complete a term paper for the course on a subject of direct interest to their own research dealing with linguistic anthropological issues. These topics should be discussed with the course instructor.

ANTH 8244 Interpreting Ancient Bone
A-F only, 4 credit(s); prereq instr consent; Credit will not be granted if credit has been received for: ANTH 5244;
Instructor: Tappen, Martha
Description: This seminar designed to provide a venue for reviewing current and classic literature on interpreting the fossil and archaeological records using information from bones of humans and of other animals, and includes topics in paleoanthropology; zooarchaeology; reconstruction of past environments using vertebrate taxonomy and ecomorphology; and site formation processes. This is not a laboratory class, but rather one based on literature. ANTH 3402/5402
Zooarchaeology Laboratory is a complementary course (but not a required prerequisite for this class). Topics such as interpreting life history and ages of death of hominins and prey, hunting techniques/scavenging, species profiles, comparative site analysis, clues of ancient social structures, and preservation issues and bone quantification techniques will be covered. The bulk of the work in this class will be weekly readings and discussion. Each week all students will read assigned articles in common on the main topic of the week, and in addition one other article that they are solely responsible for bringing to the discussion. Students will present site reports and write a paper on a related topic of their choice.
Style: 20% Lecture, 60% Discussion, 20% Laboratory.
Grading: 25% reports/papers, 25% special projects, 50% class participation. Papers and site reports will be presented to the class.

ANTH 8510 Topics in Archaeology: Archaeology of the British Isles
3-9 credit(s), max credits 9, 3 completions allowed;
Instructor: Wells, Peter S
Description: This course examines the archaeology of the British Isles, with an emphasis on Great Britain. The seminar covers the history of archaeology, as well as the material remains of societies that inhabited the British Isles from some 700,000 years ago to the present. Among the periods covered are the Neolithic, the Bronze Age, the Iron Age, the Roman Period, and the early Middle Ages. Different interpretations of the archaeological material are considered.
Style: 100% Discussion.
Grading: 35% special projects, 55% in-class presentation, 10% class participation.

ANTH 8810 Topics in Sociocultural Anthropology:
Psychological Anthropology
3 credit(s), max credits 9, 3 completions allowed;
Instructor: Ingham, John M
Description: This course will examine Slavoj Zizek's ideas about subjectivity and ideological fantasy as they apply to the anthropology of late modern society. We will review the background of Zizek's thought in German idealism and the psychoanalysis of Jacques Lacan. The aim will be to assess strengths and limitations of Zizek's approach. Thus, we will compare his ideas with general psychoanalytic approaches to dreams and fantasy and anthropological theories about myth and shared beliefs. We will also consider other Lacanian approaches to mass fantasy, especially film.
Style: 75% Discussion, 25% Student Presentation.

ANTH 8810 Topics in Sociocultural Anthropology:
Ethnographies of Science
3-9 credit(s), max credits 9, 3 completions allowed;
Instructor: Langford, Jean M
Description: Student may contact the instructor or department for information.

ANTH 8810 Topics in Sociocultural Anthropology:
Histories and Cultures of Capitalism in the U.S.
3-9 credit(s), max credits 9, 3 completions allowed;
Instructor: Deutsch, Tracey A
Description: Student may contact the instructor or department
ADES 1221 Apparel Assembly Fundamentals
A-F only, 3 credit(s); prereq Pre-apparel design major or instr consent credit will not be granted if credit already received for: DHA 1221;
Instructor: STAFF
Description: Introduction to the study of basic clothing structure through analysis of existing garments and application of basic sewing principles for creating new garments. The objectives of the course are: 1) To learn basic clothing assembly skills by studying existing garments and 2) To apply basic sewing fundamentals by creating several basic garments. This class is designed for pre-Clothing Design majors or those students interested in Clothing Design (instructor permission requested).
The class is designed for studio learning opportunities with supporting lecture and demonstration. Project work requires an average of 10 hours outside of class.
Style: 25% Lecture, 75% Laboratory.
Grading: 50% final exam, 30% special projects, 20% quizzes.
Exam Format: Multiple choice, true/false, fill in the blank

ADES 2196 Work Experience in Apparel Design
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent;
Instructor: LaBat,Karen Louise
Description: Student may contact the instructor or department for information.

ADES 2196 Work Experience in Apparel Design
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent;
Instructor: Bye,Elizabeth Kersch
Description: Student may contact the instructor or department for information.

ADES 2196 Work Experience in Apparel Design
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent;
Instructor: DeLong,Marilyn R
Description: Student may contact the instructor or department for information.

ADES 2196 Work Experience in Apparel Design
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent;
Instructor: Dunn,Lucy Elizabeth
Description: Student may contact the instructor or department for information.

ADES 2211 Illustration for Apparel Design
A-F only, 3 credit(s); prereq Pass portfolio review or instr consent credit will not be granted if credit already received for: DHA 2211;
Instructor: Sohn,MyungHee
Description: Student may contact the instructor or department for information.

ADES 2213 Textile Analysis
A-F only, 4 credit(s); prereq DHA major or pre-major or instr consent credit will not be granted if credit already received for: DHA 2213;
Instructor: LaBat,Karen Louise
Description: Student may contact the instructor or department for information.

ADES 3223 Apparel Design Studio III
A-F only, 4 credit(s); prereq [2222 or DHA 2222] with grade of at least C-, Apparel Design major, pass portfolio review credit will not be granted if credit already received for: DHA 2223;
Instructor: STAFF
Description: This course is designed for clothing design majors as part of the clothing design studio sequence. The study of tailored and non-tailored clothing structures is covered. Experimentation with a variety of materials and structures using innovative methods is explored and implemented with a series of garments.
Style: 15% Lecture, studio work
Grading: 80% special projects, 10% in-class presentation, 10% laboratory evaluation.

ADES 4160H Honors Capstone Project
A-F only, 2 credit(s), max credits 4; prereq DHA honors;
Instructor: LaBat,Karen Louise
Description: Student may contact the instructor or department for information.

ADES 4160H Honors Capstone Project
A-F only, 2 credit(s), max credits 4; prereq DHA honors;
Instructor: Bye,Elizabeth Kersch
Description: Student may contact the instructor or department for information.

ADES 4160H Honors Capstone Project
A-F only, 2 credit(s), max credits 4; prereq DHA honors;
Instructor: DeLong,Marilyn R
Description: Student may contact the instructor or department for information.

ADES 4160H Honors Capstone Project
A-F only, 2 credit(s), max credits 4; prereq DHA honors;
Instructor: Dunn,Lucy Elizabeth
Description: Student may contact the instructor or department for information.

ADES 4193 Directed Study in Apparel Design
A-F only, 1-4 credit(s), max credits 8; prereq Undergrad, instr consent;
Instructor: LaBat,Karen Louise
Description: Student may contact the instructor or department for information.

ADES 3170 Topics in Apparel Design: Chinese Fashion
A-F only, 1 credit(s), max credits 32, 8 completions allowed;
Instructor: Wu,Juanjuan
Description: Student may contact the instructor or department for information.

ADES 3217 Fashion: Trends and Communication
A-F only, 3 credit(s); prereq credit will not be granted if credit already received for: DHA 3217;
Instructor: Wu,Juanjuan
Description: Student may contact the instructor or department for information.

ADES 4193 Directed Study in Apparel Design
A-F only, 1-4 credit(s), max credits 8; prereq Undergrad, instr consent;
Instructor: Dunn,Lucy Elizabeth
Description: Student may contact the instructor or department for information.

ADES 4193 Directed Study in Apparel Design
A-F only, 1-4 credit(s), max credits 8; prereq Undergrad, instr consent;
Instructor: DeLong,Marilyn R
Description: Student may contact the instructor or department for information.

ADES 4193 Directed Study in Apparel Design
A-F only, 1-4 credit(s), max credits 8; prereq Undergrad, instr consent;
Instructor: Bye,Elizabeth Kersch
Description: Student may contact the instructor or department for information.

ADES 4193 Directed Study in Apparel Design
A-F only, 1-4 credit(s), max credits 8; prereq Undergrad, instr consent;
Instructor: Dunn,Lucy Elizabeth
Description: Student may contact the instructor or department for information.

ADES 4193 Directed Study in Apparel Design
A-F only, 1-4 credit(s), max credits 8; prereq Undergrad, instr consent;
Instructor: DeLong,Marilyn R
Description: Student may contact the instructor or department for information.

ADES 4193 Directed Study in Apparel Design
A-F only, 1-4 credit(s), max credits 8; prereq Undergrad, instr consent;
Instructor: Dunn,Lucy Elizabeth
Description: Student may contact the instructor or department for information.

ADES 4193 Directed Study in Apparel Design
A-F only, 1-4 credit(s), max credits 8; prereq Undergrad, instr consent;
Instructor: DeLong,Marilyn R
Description: Student may contact the instructor or department for information.

ADES 4193 Directed Study in Apparel Design
A-F only, 1-4 credit(s), max credits 8; prereq Undergrad, instr consent;
Instructor: Dunn,Lucy Elizabeth
Description: Student may contact the instructor or department for information.

ADES 4193 Directed Study in Apparel Design
A-F only, 1-4 credit(s), max credits 8; prereq Undergrad, instr consent;
Instructor: DeLong,Marilyn R
Description: Student may contact the instructor or department for information.
APST 8192 Readings in Apparel Studies  
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;  
prereq instr consent credit will not be granted if credit already received for: DHA 8192;  
Instructor: Bye, Elizabeth Kersch  
Description: Student may contact the instructor or department for information.

APST 8192 Readings in Apparel Studies  
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;  
prereq instr consent credit will not be granted if credit already received for: DHA 8192;  
Instructor: Johnson, PhD, Kim KP  
Description: Student may contact the instructor or department for information.

APST 8192 Readings in Apparel Studies  
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;  
prereq instr consent credit will not be granted if credit already received for: DHA 8192;  
Instructor: Wu, Juanjuan  
Description: Student may contact the instructor or department for information.

APST 8192 Readings in Apparel Studies  
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;  
prereq instr consent credit will not be granted if credit already received for: DHA 8192;  
Instructor: DeLong, Marilyn R  
Description: Student may contact the instructor or department for information.

APST 8193 Directed Study  
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;  
prereq instr consent credit will not be granted if credit already received for: DHA 8193;  
Instructor: Dunne, Lucy Elizabeth  
Description: Student may contact the instructor or department for information.

APST 8193 Directed Study  
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;  
prereq instr consent credit will not be granted if credit already received for: DHA 8193;  
Instructor: By, Elizabeth Kersch  
Description: Student may contact the instructor or department for information.

APST 8193 Directed Study  
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;  
prereq instr consent credit will not be granted if credit already received for: DHA 8193;  
Instructor: Johnson, PhD, Kim KP  
Description: Student may contact the instructor or department for information.

APST 8193 Directed Study  
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;  
prereq instr consent credit will not be granted if credit already received for: DHA 8193;  
Instructor: DeLong, Marilyn R  
Description: Student may contact the instructor or department for information.
APST 8193 Directed Study  
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent credit will not be granted if credit already received for: DHA 8193;  
Instructor: Wu,Juanjuan  
Description: Student may contact the instructor or department for information.

APST 8193 Directed Study  
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent credit will not be granted if credit already received for: DHA 8193;  
Instructor: Kim,Hye-Young  
Description: Student may contact the instructor or department for information.

APST 8222 Plan B Master's Project  
S-N only, 3 credit(s); prereq DHA master's student, instr consent credit will not be granted if credit already received for: DHA 8222;  
Instructor: Dunne,Lucy Elizabeth  
Description: Student may contact the instructor or department for information.

APST 8271 Retailing: Strategic Perspectives  
A-F only, 3 credit(s);  
Instructor: Kim,Hye-Young  
Description: Student may contact the instructor or department for information.

APUS 3051 Career Skills in the Professional Environment  
2 credit(s); prereq 60 semester cr;  
Instructor: Bonderson,Lori  
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Career planning and job search processes appropriate to business/professional careers in corporate culture. Exploring career options: career centers, company research and networking, Resume and cover letter writing. Job interview preparation. Organizational culture and job satisfaction. Business etiquette.  
Style: 100% Web Based.  
Grading: -Self-Introduction, 4 Discussions, and 2 Live Chats -Self-Intro -4 Discussions -Live Chats 12% -Cover Letter 10% -Resume 10% -Networking Assignment 10% -Career Center Visit 10% -Course Project: Progress Report 3% -Company Research 10% -Interview Preparation 10% -Final Project 25%  

APUS 3065 Computer Security for the Business Professional  
3 credit(s); prereq Basic computer/internet navigation skills, laptop with minimum 2GB ram/DVD player/Windows XP;  
Instructor: Estrem,LeAllan James  
Description: Fundamental concepts of computer security without technical jargon. Real-world examples and issues. Practices for safe, secure and ethical computer use: virus, worms and malware detection and elimination; antivirus and firewall selection; secure Internet purchasing; using social networking sites; web page set-up.

APUS 3301 Introduction to Quality Management  
A-F only, 3 credit(s); prereq Introductory statistics;  
Instructor: Martens,Scott L  
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policy, fee, and financial aid information. Principles and concepts of managing quality in the context of business applications. Emphasizes improvement of business processes with six sigma process improvement methodology. Includes strategy for implementing and leading process improvement, Baldrige Award, ISO 9000, process control, performance measurement systems and Six Sigma.  
Style: 100% Web Based.  
Grading: 20% mid exam, 20% final exam, 10% special projects, 10% class participation. -11 article questions (10%) -11 discussion questions (10%) -4 group assignments (10%) -self-introduction (0%) -interview (10)

APUS 4012 Strategic Decision Making and Problem Solving  
A-F only, 3 credit(s); prereq 45 cr;  
Instructor: Swanson,Trisha Katherine  
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Frameworks and processes for decision-making emphasize: analyzing root causes, effects of problems and
solutions within large and small organizations. Focus on creativity and team building in the problem solving heuristic model. Hands-on assignments include case studies, and a final real-world project and online presentation.

**Style:** 100% Web Based.

**Grading:**
- 1 self-introduction (1%)
- 10 creativity journal entries (5%)
- 12 discussions (24%)
- 4 exercises (40%)
- 1 final project (30%)

**ABUS 4022 Management in Organizations**  
**A-F only, 3 credit(s); prerequisite 45 cr completed;**  
**Instructor:** Haarklau,Evon A  
**Description:** This fully online section is offered through Online and Distance Learning, College of the Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. This course brings together key elements from the practical (on the job), the theoretical (in the classroom), and the personal (self-assessment) to facilitate a better understanding of management as a profession. By the conclusion of this course, you will have learned to: --compare and contrast theoretical and practical thinking on professional management, and apply this knowledge to current practice; --describe and apply the characteristics of a strong manager in a high-performance organization; --explain and illustrate how planning, organizing, leading, and controlling are accomplished in a specific industry or organization; and --assess your own aptitude, interest, and knowledge for entering the management profession.

**Style:** 100% Web Based.

**Grading:**
- 9 group discussion postings and responses (4%)
- 2 applied management research papers with executive summaries (32%)
- A personal assessment and reflection paper (16%)
- 3 online quizzes (48%)

**ABUS 4023W Communicating for Results**  
**A-F only, 3 credit(s); prerequisite 45 cr completed; Meets CLE req of Writing Intensive;**  
**Instructor:** Lowry,Ann E.

**Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Aspects of communication essential for being persuasive/influential. Organizing/presenting ideas effectively, strategies for audience analysis, choosing communication methods, making appropriate use of informal influence methods, handling dissent. Processes for intercultural communication.

**Style:** 100% Web Based.

**Grading:**
- 9 group discussion forums (10%)
- Web 2.0 wiki project (20%)
- 9 all-class discussion forums (10%)
- 9 documents (47%)
- 4 Wimba Voice Boards (13%)

**ABUS 4041 Dynamics of Leadership**  
**A-F only, 3 credit(s); prerequisite 45 cr completed;**  
**Instructor:** Kaiser,David

**Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. In this course, your learning about leadership will occur in two ways: --learning about and understanding leadership strategies, values, characteristics, and styles (the context)--analyzing your own perspectives and beliefs about leadership (your interpretation of the context) This course will give you the knowledge and understanding of the qualities and skills necessary to become a leader within various contexts. It will assist you in working in various organizational environments and understanding the impact of globalization and diversity on achieving organizational directives.

**Style:** 100% Web Based.

**Grading:**
- 1 mid exam, 30% final exam, 15% special projects.
- self-introduction (1%)
- 12 discussions (24%)
- 1 self-selected learning assignment (20%)

**ABUS 4043 Project Management in Practice**  
**A-F only, 3 credit(s); prerequisite 4102, 45 cr completed;**  
**Instructor:** Giopen,Valarie J

**Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Managerial perspective of project management principles, the nature of project work, how to organize, manage, and control it, and the effects of human behavior on the project management process. Tools and techniques to support the project leader in areas such as scheduling, coordinating, and allocating resources. Students apply what they learn in an assigned scenario-based project or a self-selected field project. Microsoft Project software is used, and is available on class textbook CD and campus computer labs.

**Style:** 100% Web Based.

**Grading:**
- 5% mid exam, 15% final exam, 35% special projects,
- 5% written homework, 10% class participation.
- 5 group cases
- 5 practice files (15%)
- optional extra credit (5710 extra credit pts.)

**ABUS 4101 Accounting and Finance for Managers**  
**A-F only, 3 credit(s); prerequisite Financial accounting, 45 cr;**  
**Instructor:** Vickman,Thomas M

**Description:** This fully online course is offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid information. This course is aimed at those who are interested in gaining practical knowledge of the major finance and managerial accounting issues facing organizations today. At the conclusion of this course, you should be able to: distinguish between various management cost terms and concepts; -identify and understand quality costs and quality programs; -analyze costing activities to help improve an organization's work flow; -understand how fixed and variable costs behave; -calculate the effects of changes in selling prices, costs, sales mix, and volume on profitability; -prepare various types of budgets; -calculate standard cost variances and determine what they mean; -apply decision techniques to determine whether to retain or discontinue a product; -make, lease, or buy a part; accept or refuse an order; expand, shut down, or eliminate a facility or product line; -apply time value of money concepts to determine present and future value; -evaluate capital expenditure proposals; -use an organization's financial statements to detect its strengths and weaknesses and assess its future prospects.

**Style:** 100% Web Based.

**Grading:**
- 30% special projects, 10% quizzes.
- self-introduction and test submission (2%)
- 9 online discussions (18%)
- 10 problem sets (40%)

**ABUS 4102 Operations in Manufacturing and Service Businesses**  
**A-F only, 3 credit(s); prerequisite 45 cr completed;**  
**Instructor:** McNamara,Daniel E

**Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Concepts/principles related to management of operations functions. Operations strategy, process, design, just-in-time inventory management, forecasting, scheduling, quality improvement. Relationships between operations and the environment.

**Style:** 100% Web Based.

**Grading:**
- 26% quizzes, 7% problem solving.
- 2 group project reports (20%)
- 2 group project evaluations (10%)
- self-introduction (2%)
- 14 discussions (35%)

**ABUS 4151 Innovation for Leaders and Organizations**  
**A-F only, 3 credit(s); prerequisite 45 cr;**  
**Instructor:** Sen,Abir

**Description:** Innovation as a cornerstone of a knowledge economy. History and value of the innovation process, and importance to individuals and organizations. Strategies to foster personal and collaborative innovation. Responsibilities in personal innovation skill-building and leading innovation in organizations.

**ABUS 4321 Evaluating Performance Excellence in Organizations**  
**S-N only, 3 credit(s); prerequisite Submit MNQA evaluator application;**
**APEC 1001 Orientation to Applied Economics**
A-F only, 1 credit(s);
**Instructor:** Cooper, Gary M
**Description:** Introduction to the curriculum offerings, liberal education requirements, employment opportunities and the faculty in the Department of Applied Economics. This is a required one-credit course for all undergraduates majoring in Agricultural and Food Business Management or in Applied Economics. Emphasis will be placed on the historical development of the discipline, the areas of specialization, course work expectations and career planning (e.g., student self-assessment and analysis of interests, skills and abilities; discussion of opportunities in the field—study abroad, research, summer jobs, and internships).

**Exam Format:** The two quizzes will be multiple choice, short answer and choice of short essay.

**APEC 1101 Principles of Microeconomics**
3 credit(s); Credit will not be granted if credit has been received for: ECON 1101; Meets CLE req of Social Sciences;
**Instructor:** Okediji, Tade O
**Description:** This is a required one-credit course for all undergraduates majoring in Agricultural and Food Business Management or in Applied Economics. Emphasis will be placed on the historical development of the discipline, the areas of specialization, course work expectations and career planning (e.g., student self-assessment and analysis of interests, skills and abilities; discussion of opportunities in the field—study abroad, research, summer jobs, and internships).

**Exam Format:** The two quizzes will be multiple choice, short answer and choice of short essay.

**APEC 1101H Principles of Microeconomics**
A-F only, 4 credit(s); prereq Honors student, proficiency in high school algebra; Credit will not be granted if credit has been received for: APEC 1101; Meets CLE req of Social Sciences;
**Instructor:** Liu, Donald J.
**Description:** This course focuses on the application of microeconomic theory to managerial problems. Lectures, readings, problem sets, lab sessions, case studies, and discussions integrate theory and applications. Topics include: an introduction to regression analysis, demand analysis and demand function estimation, cost analysis and cost function estimation, resource allocation decisions, linear programming, and computer applications. This course is the first in a sequence with APEC 2001, APEC 3001, APEC 3002.

**Instructor:** Cooper, Gary M
**Description:** This course is designed to provide a basic understanding of financial accounting, including introductory accounting theory, concepts, principles and procedures. Specific attention will be paid to the preparation and understanding of the four financial statements (balance sheet, income statement, statement of retained earnings, and statement of cash flows). The intended audience for this class is students majoring in retail merchandising, agricultural education, and animal science as well as other non-business related majors at the University. To help organize your learning, we will have weekly quizzes each Friday. These will take the place of formal exams. While the quizzes cover only a chapter each week, the material in this course does build upon itself and requires some time working on assigned problems outside of class.

**Style:** 85% Lecture, 15% Discussion.
**Grading:** 70% quizzes, 25% written homework, 5% attendance. Rather than a midterm and final exam, this class will have required weekly quizzes (mini-exams) every Friday. Each quiz will cover one chapter from the text.

**Exam Format:** Multiple choice and problem solving.

**APEC 3001 Applied Microeconomics:** Consumers, Producers, and Markets
4 credit(s); prereq [[1101 or ECON 1101 or 1101H or ECON 1101H], [MATH 1142 or MATH 1271] or instr consent; intended for undergrads in [Ag/Food Bus Mgmt, Appl Econ]; Credit will not be granted if credit has been received for: ECON 3101;
**Instructor:** Huang, Qiutong
**Description:** Microeconomics studies the rational choices under scarcity. This course develops the basic concepts and framework for microeconomic analysis and applies it to analyzing practical economic problems with an emphasis on government policies. Topics include: diminishing marginal utility, the law of diminishing returns, the production possibilities curve, supply and demand analysis that examines how changes in market conditions and policies affect market equilibrium price and quantity, how consumers/buyers/individuals make choices to maximize their well-being given their limited income, derive demand curve from decision-making of consumers, how producers/sellers/firms make choices to maximize their profits given their limited budget and technology, derive supply curve from production decisions of producers, welfare analysis, and market structure including perfect competition and imperfect competition (monopoly). This course is the first in a sequence with APEc 3002 (Managerial Economics).

**Style:** 90% Lecture, 5% Small Group Activities, 5% Student Presentation.
**Grading:** 55% mid exam, 35% written homework, 10% class participation.

**APEC 3002 Applied Microeconomics:** Managerial Economics
4 credit(s); prereq [[3001 or ECON 3101], [OMS 2550 or STAT 3011] or instr consent;
**Instructor:** Apland, Jeffrey
**Description:** This course focuses on the application of microeconomic theory to managerial problems. Lectures, readings, problem sets, lab sessions, case studies, and discussions integrate theory and applications. Topics include: an introduction to regression analysis, demand analysis and demand function estimation, cost analysis and cost function estimation, resource allocation decisions, linear programming.
APEC 3006 Applied Macroeconomics: Government and the Economy
3 credit(s); prereq [[1102 or Econ 1102], [3001 or Econ 3101]] or instr consent; Credit will not be granted if credit has been received for: ECON 3102;
Instructor: Smith, Rodney B
Description: This course is concerned mainly with aggregate economic activity and economic growth. Major emphasis is on factors determining national income, employment, interest rates, and the price level. These factors include aggregate consumption, business investment, imports and exports, government spending and taxation, the money market, and the labor market. The impact of savings and technical progress on economic growth is examined using a simple model of economic growth.
Style: 80% Lecture, 20% Laboratory. In class discussion.
Grading: 60% mid exam, 40% final exam.
Exam Format: combination of true/false explain, multiple choice, and short essay

APEC 3007 Applied Macroeconomics: Policy, Trade, and Development
3 credit(s); prereq [1101 or ECON 1101], [1101H or ECON 1101H], [1102 or ECON 1102], [1102H or ECON 1102H]; 3001, 3006 recommended; Meets CLE req of Global Perspectives;
Instructor: Pardey, Philip Gordon
Description: This is an undergraduate course in trade and economic development addressed in five main parts. Part I lays out what we know about the state of economic development worldwide and international trade: including indicators of economic development, how trade has grown over recent centuries, and concerns over globalization and the welfare of developing countries. Part II develops the concept of comparative advantage and the technological basis for trade and the gains from trade. The concepts of productivity, technical change, and the role of research and development will be identified and discussed. Part III of the course will discuss trade policy instruments such as tariffs, subsidies, and trade preferences along with the trade related institutions that make trade and development happen. Part IV revisits the basis for trade, identifying the role of resource endowments. The trade models considered here go beyond identifying the gains from trade to reveal the income distribution consequences of trade. Part V includes a selection of trade-related topics, some of which may be considered in class if time permits. Topics listed include the international movement of capital and labor (i.e., factor mobility), intellectual property and trade regulation, economies of scale and imperfect competition, and trade policies in developing countries.
Style: 80% Lecture, 20% Discussion.
Grading: 35% final exam, 35% reports/papers, 35% quizzes.
Exam Format: Testing understanding of basic economic terms and concepts related to trade and economic development; problem solving true and false and multiple choice questions; empirical problems; and short essays

APEC 3071 Agriculture and Economic Growth in Developing Countries
3 credit(s); prereq 1101, 1102, Econ 1101, 1102 or instr consent;
Instructor: Senauer, Benjamin H
Description: This course will cover a range of topics on economic development of low-income countries, with a particular focus on the role of agriculture. The course assumes some familiarity with basic microeconomics. Topics to be covered include agricultural issues in developing countries, hunger, population growth, impacts on the environment and the role of policy, as well as others. A major paper on a topic chosen by the students is required.
Style: 40% Lecture, 40% Discussion. Student presentations in class.
Grading: 50% mid exam, 25% reports/papers, 10% quizzes, 5% in-class presentation, 10% class participation.
Exam Format: Multiple choice and essay

APEC 3411 Commodity Marketing
3 credit(s); prereq 1101 or Econ 1101;
Instructor: Buhr, Brian L
Description: This course exposes the student to the economic concepts related to marketing agricultural commodities. The course examines the conditions of competitive markets, historical perspectives on market institutions and policy, structural characteristics of agricultural commodity sectors, and policies and regulations affecting agricultural marketing of livestock, crop and dairy products. It is intended to serve as a precursor to ApEc 4481: Futures and Options Markets. A key component of the course is learning concepts of price and market analysis. Students will collect data and analyze price changes for a chosen commodity. These tools are commonly used by commodity traders, commodity policy analysts, and economists in general.
Style: 80% Lecture, 20% Discussion.
Grading: 20% mid exam, 30% final exam, 20% reports/papers, 10% class participation, 20% problem solving.
Exam Format: Multiple Choice, True/False and short problem solving and answer

APEC 3501 Agribusiness Finance
3 credit(s); prereq [[1251 or Acct 2050], 60 cr] or instr consent; Credit will not be granted if credit has been received for: FINA 3001;
Instructor: Pederson, Glenn Darwin
Description: Topics include: analysis of financial performance of firms; evaluation of capital investment projects, selection of financial structure, risk management, and introduction to financial markets and instruments. Teaching is primarily accomplished through lecture, class discussion, problem solving exercises, and case problems. Text and lecture notes are the primary reference materials. A standard introductory business finance text is used.
Style: 80% Lecture, 20% Discussion, 20% Laboratory.
Grading: 20% mid exam, 30% final exam, 20% quizzes, 20% other evaluation. decision cases
Exam Format: Multiple choice, problems, and essays

APEC 3911 Independent Study in Applied Economics
1-4 credit(s); max credits 4, 1 completion allowed; prereq instr consent;
Instructor: STAFF
Description: Independent study and supervised reading and research on subjects and problems not covered in regularly offered courses. Coursework varies by instructor. No exams usually given.

APEC 4096 Professional Experience Program: Internship
S-N only, 1-3 credit(s), max credits 6, 6 completions allowed; prereq CFANS undergrad, instr consent, completed internship contract;
Instructor: STAFF
Description: Professional experience in agribusiness firms or government agencies gained through supervised practical experience; evaluative reports and consultations with faculty advisors and employers.

APEC 4103 World Food Problems
3 credit(s); prereq jr or sr or grad; Credit will not be granted if credit has been received for: AGRO 4103; Meets CLE req of Global Perspectives;
Instructor: Porter, Paul M
Description: This course provides a multi-disciplinary look at problems (and some of the possible solutions) affecting food production, storage, and utilization. Presentations and discussions introduce and discuss sometimes conflicting views on population control, use of technology, as well as the ethical
and cultural values of people in various countries of the world. Emphasis is placed on the need for governments, international assistance agencies, international research and extension centers, as well as private business sector to assist in solving these complex problems. Students can enroll in either Agro 4103 or APEC 4103. Previous background in any of the disciplines is not required, but students should expect upper division and/or graduate level assignments.

**Style**: 33% Lecture, 33% Discussion.

**Grading**: 60% reports/papers, 25% special projects, 15% class participation.

*APEC 4451W Food Marketing Economics*

3 credit(s); prereq [[1101 or Econ 1101], [1101H or Econ 1101H], MKTG 3001, 60 cr] or instr consent; Credit will not be granted if credit has been received for: APEC 5451; Meets CLE reg of Civic Life and Ethics; meets CLE reg of Writing Intensive;

**Instructor**: Senauer, Benjamin H

**Description**: The course covers the development of a marketing plan/strategy for food products, including developing a target market based on consumer trends and segmentation. The food industry at the retail (foodstore and foodservice) and wholesale levels, plus supply chain management are studied, including the impact of e-commerce both at the consumer and business levels. Current ethical and public policy issues confronting the food industry are examined and considered from various perspectives. Students pursue individual and group projects. Three special projects account for 50% of the grade. They require written reports of about 5 pages and class presentations. The first involves developing a marketing plan for a food product and the second a case study of a marketing decision by a local food business. The last project involves a debate of food and nutrition policy issues by the class. There are several industry speakers. The course fulfills both writing intensive and citizenship and public ethics requirements.

**Style**: 50% Lecture, 25% Discussion. Presentations and debates

**Grading**: 40% reports/papers, 10% in-class presentation, 10% class participation, 40% other evaluation. Exams

**Exam Format**: Essay, short answer

*APEC 4461 Horticultural Marketing*

A-F only, 3 credit(s); prereq 1101 or ECON 1101; Credit will not be granted if credit has been received for: HORT 4461;

**Instructor**: Yue, Chengyan

**Description**: This course examines several major areas in horticultural marketing. First, we will introduce the difference between horticultural products and commercial commodities and what’s special about horticultural marketing; Second, we analyze the functions performed by the horticultural marketing system. We analyze the marketing behavior of horticultural businesses (farms, wholesalers, garden centers) and cover the core marketing components that should be used by every small horticultural business; Finally, the basic approaches of consumer research (survey techniques, and non-hypothetical experimental approaches, etc.) will be introduced. The recommended textbook is Solomon, Michael R. and Elnora Stuart. 2003. Marketing: Real People, Real Choices, 3rd Ed. This course will consist of lectures, discussions, and student projects and presentations. Students will work on the projects in small group teams of three or four. The target audience is undergraduate students and master of agriculture students.

**Style**: 60% Lecture, 40% Discussion.

**Grading**: 30% mid exam, 20% final exam, 15% reports/papers, 10% quizzes, 20% in-class presentation, 5% class participation.

**Exam Format**: Multiple choice and short answer questions.

*APEC 5031 Methods of Economic Data Analysis*

3 credit(s); prereq Math 1271, Stat 5021, knowledge of matrix algebra;

**Instructor**: Mykerezi, Elton

**Description**: Student may contact the instructor or department for information.

*APEC 5151 Applied Microeconomics: Firm and Household*

3 credit(s); prereq 3001 or Math 1271 or Math 2243 or equiv or grad student or instr consent;

**Instructor**: Mc Cullough, Gerard John

**Description**: This course provides a comprehensive and rigorous introduction to modern applied microeconomics. It uses maximization techniques from elementary calculus as the principal analytical tool and elementary regression techniques as means of demonstration. It covers models of choice and demand, production and supply, partial and general equilibrium, market power, labor, capital, asymmetric information, externalities and public goods.

**Style**: 80% Lecture, 20% Discussion.

**Grading**: 20% mid exam, 60% final exam, 20% written homework.

*APEC 5451 Food Marketing Economics*

A-F only, 3 credit(s); prereq grad student; Credit will not be granted if credit has been received for: APEC 4451W;

**Instructor**: Senauer, Benjamin H

**Description**: The course covers the development of a marketing plan/strategy for food products, including developing a target market based on consumer trends and segmentation. The food industry at the retail (foodstore and foodservice) and wholesale levels, plus supply chain management are studied, including the impact of e-commerce both at the consumer and business levels. Current ethical and public policy issues confronting the food industry are examined and considered from various perspectives. Students pursue individual and group projects. Three special projects account for 50% of the grade. They require written reports of about 5 pages and class presentations. The first involves developing a marketing plan for a food product and the second a case study of a marketing decision by a local food business. The last project involves a debate of food and nutrition policy issues by the class. There are several industry speakers. The course fulfills both writing intensive and citizenship and public ethics requirements.

**Style**: 50% Lecture, 25% Discussion. Presentations and debates

**Grading**: 40% reports/papers, 10% in-class presentation, 10% class participation, 40% other evaluation. Exams

**Exam Format**: Essay, short answer

*APEC 5651 Economics of Natural Resource and Environmental Policy*

3 credit(s); prereq [3001 or Econ 3101], [4611 or Econ 3611 or NRES 3261W] or instr consent;

**Instructor**: Easter, K William

**Description**: The course emphasizes the economics of natural resource use over time, natural resource scarcity or adequacy, environmental economics and mechanisms for pollution control and their implications for public policy. It will also include study of the use of economic analysis and benefit cost analysis in natural resource and environmental quality decisions made both by the public and private sectors. This course is designed to service two groups: (1) seniors and graduate students in Applied Economics, Public Affairs, Geography, Natural Resources, etc., for whom it is a terminal course, and (2) Applied Economics or Economics students who plan to take ApEc8601 and/ or 8602. The course is organized around two lectures per week. However, discussion and questions are encouraged. Readings will be assigned that are on reserve.

**Style**: 85% Lecture, 15% Discussion.

**Grading**: 35% mid exam, 35% final exam, 20% reports/papers, 10% problem solving.

**Exam Format**: Short essay

*APEC 5711 U.S. Agricultural and Environmental Policy*

3 credit(s); prereq 3001 or Econ 3101;

**Instructor**: Runge, Carlisle Ford

**Description**: This course provides an overview of global challenges to the survival and sustainability of the environment. The introductory first part of the course introduces the magnitude of these challenges in physical, ecological and human terms. The second part offers a set of economic tools relevant to analysis of these issues: the discount rate, property rights, basic game theory. The third part applies these concepts to a variety of international environmental problems.

**Style**: 70% Lecture, 30% Discussion.
APEC 5751 Global Trade and Policy
3 credit(s); prereq 3001 or Econ 3101 or PA 5021;
Instructor: Smith, Pamela Jane
Description: Topics: This course examines global trade and policy. Questions examined include: (1) What determines country exports and imports? (2) Who gains and who loses from trade, within countries and globally? (3) How do trade policies affect welfare, within countries and globally? (4) How do exchange rates affect trade? and (5) What trade and policy issues are currently being negotiated? Methods: Students will learn how to apply economic theories of trade and policy to answer the questions above. Text: Krugman, Paul and Maurice Obstfeld, "International Economics: Theory and Practice." New York: Harper Collins. Level: This course is designed for graduate students and advanced undergraduates.
Style: 50% Lecture, 50% Discussion.
Grading: 40% mid exam, 20% final exam, 20% in-class presentation, 20% other evaluation. class participation
Exam Format: Problem solving and short essay.

APEC 5891 Independent Study: Advanced Topics in Farm and Agribusiness Management
1-4 credit(s), max credits 4, 1 completion allowed; prereq instr consent;
Instructor: STAFF
Description: Special topics or individual work.
Style: Varies/individuals approach
Grading: 100% other evaluation. Varies

APEC 5991 Special Topics and Independent Study in Applied Economics
1-4 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: STAFF
Description: Special classes, independent study, and supervised reading and research on subjects not covered in regularly offered courses. Coursework varies by instructor. No exams usually given.

APEC 8202 Mathematical Optimization in Applied Economics
3 credit(s); prereq [5151, Econ 5151] or equiv or instr consent;
Instructor: Apland, Jeffrey
Description: Student may contact the instructor or department for information.

APEC 8205 Applied Game Theory
3 credit(s); prereq [8101, 8102, 8103, 8104] or [Econ 8001, Econ 8002, Econ 8003, 8004] or instr consent;
Instructor: Hurley, Terry
Description: Student may contact the instructor or department for information.

APEC 8211 Econometric Analysis I
4 credit(s); prereq [[Stat 4102 or Stat 5102], Ph.D. student] or instr consent;
Instructor: Mc Cullough, Gerard John
Description: This is the first half of a two semester introduction to applied econometrics. One aim is to introduce students to the use of econometric techniques, including the basic methods of classical regression analysis and inference, as well as some methods commonly used when the classical regression model is not appropriate. A second objective is to present students with sufficient econometric theory to thoroughly understand the techniques they are using, and to prepare them for the second semester. The approach is "hands-on." Students will be expected to analyze a number of economic data sets with programs that they write using MATLAB?. Lectures will focus on econometric techniques and theory. Basics of MATLAB programming are covered in section.
Style: 60% Lecture, 20% Discussion, 20% Small Group

Grading: 30% mid exam, 50% final exam, 20% written homework.

APEC 8401 Consumer Behavior and Policy
A-F only, 2 credit(s); prereq Econ 5151 or [Econ 8001, Econ 8002] or [Econ 8101, Econ 8102] or instr consent;
Instructor: Senauer, Benjamin H
Description: Student may contact the instructor or department for information.

APEC 8402 Information and Behavioral Economics
A-F only, 2 credit(s); prereq [8401, Econ 8001, Econ 8002] or [Econ 8101, Econ 8102] or equiv or instr consent;
Instructor: Yue, Chengyuan
Description: Student may contact the instructor or department for information.

APEC 8701 International Economic Development, Growth, and Trade
3 credit(s); prereq Econ 8002 or Econ 8102 or instr consent;
Instructor: Roe, Terry Lee
Description: Student may contact the instructor or department for information.

APEC 8902 Graduate Seminar: Ph.D. Program
S-N only, 1 credit(s); prereq Agri/ApEc Phd student or ApEc Phd student;
Instructor: Smith, Pamela Jane
Description: Student may contact the instructor or department for information.

APEC 8991 Advanced Topics in Applied Economics: Public Finance
3 credit(s), max credits 6, 1 completion allowed; prereq instr consent;
Instructor: Kalambokidis, Laura TJ
Description: Student may contact the instructor or department for information.

ARAB 1101 Beginning Arabic I
5 credit(s); Credit will not be granted if credit has been received for: ARAB 4101;
Instructor: Khalek, Hisham A
Description: Arabic 1101 is the first in a sequence of courses aimed at reading, speaking, listening, and writing formal Arabic, also known as Modern Standard Arabic. The class begins with learning the alphabet; pronunciation, reading, and writing, and proceeds into learning basic communicative interactions. The course also introduces students to the cultures of the Arabic-speaking people. The target audience includes undergraduate as well as graduate students. The texts used are Assalamu Alaykum series by Hisham Khalek.
Style: 40% Lecture, 10% Film/Video, 20% Discussion, 10% Laboratory, 20% Small Group Activities. Culture
Grading: 25% final exam, 15% quizzes, 15% written homework, 35% additional semester exams, 5% attendance, 10% laboratory evaluation.
Exam Format: Vocab knowledge/fill in the blank. Reading Comprehension. Listening comprehension.

ARAB 1101 Beginning Arabic I
5 credit(s); Credit will not be granted if credit has been received for: ARAB 4101;
Instructor: Khalfaoui, Amel
Description: Student may contact the instructor or department for information.

ARAB 1101 Beginning Arabic I
5 credit(s); Credit will not be granted if credit has been received for: ARAB 4101;
Instructor: Khalfaoui, Amel
Description: Student may contact the instructor or department for information.
ARAB 4101 Beginning Arabic I
5 credit(s); Credit will not be granted if credit has been received for: ARAB 4101; Instructor: Mohammed,Sidow Abdishariff
Description: Student may contact the instructor or department for information.

ARAB 1101 Beginning Arabic I
5 credit(s); Credit will not be granted if credit has been received for: ARAB 4101; Instructor: Elmeski,Mohammed
Description: Student may contact the instructor or department for information.

ARAB 3101 Intermediate Arabic I
5 credit(s); prereq 1102 or equiv or instr consent; Instructor: Khalek,Hisham A
Description: Student may contact the instructor or department for information.

ARAB 3020 Arabic Language Teaching Tutorial
S-N only, 1 credit(s), max credits 2; prereq Grade of A in 3102/4122; Instructor: Khalek,Hisham A
Description: Student may contact the instructor or department for information.

ARAB 4101 Beginning Arabic I
3 credit(s); prereq Grad student; Credit will not be granted if credit has been received for: ARAB 1101; Instructor: Khalek,Hisham A
Description: Arabic 1101 is the first in a sequence of courses aimed at reading, speaking, listening, and writing formal Arabic, also known as Modern Standard Arabic. The class begins with learning the alphabet; pronunciation, reading, and writing, and proceeds into learning basic communicative interactions. The course also introduces students to the cultures of the Arabic-speaking people. The target audience includes undergraduate as well as graduate students. The texts used are Assalamu Alaykum series by Hisham Khalek.
Style: 40% Lecture, 10% Film/Video, 20% Discussion, 10% Laboratory, 20% Small Group Activities. Culture
Grading: 25% final exam, 10% quizzes, 15% written homework, 35% additional semester exams, 5% attendance, 10% laboratory evaluation.
Exam Format: Vocab knowledge/fill in the blank. Reading Comprehension, Listening comprehension.

ARAB 4101 Beginning Arabic I
3 credit(s); prereq Grad student; Credit will not be granted if credit has been received for: ARAB 1101; Instructor: Elmeski,Mohammed
Description: Arabic 1101 is the first in a sequence of courses aimed at reading, speaking, listening, and writing formal Arabic, also known as Modern Standard Arabic. The class begins with learning the alphabet; pronunciation, reading, and writing, and proceeds into learning basic communicative interactions. The course also introduces students to the cultures of the Arabic-speaking people. The target audience includes undergraduate as well as graduate students. The texts used are Assalamu Alaykum series by Hisham Khalek.
Style: 40% Lecture, 10% Film/Video, 20% Discussion, 10% Laboratory, 20% Small Group Activities. Culture
Grading: 25% final exam, 10% quizzes, 15% written homework, 35% additional semester exams, 5% attendance, 10% laboratory evaluation.
Exam Format: Vocab knowledge/fill in the blank. Reading Comprehension, Listening comprehension.

ARAB 4121 Intermediate Arabic I
3 credit(s); prereq [4102 or equiv], grad student; Instructor: Khalek,Hisham A
Description: Student may contact the instructor or department for information.

ARAB 4121 Intermediate Arabic I
3 credit(s); prereq [4102 or equiv], grad student; Instructor: Elmeski,Mohammed
Description: Student may contact the instructor or department for information.

ARAB 5101 Advanced Arabic I
3 credit(s), max credits 4, 1 completion allowed; prereq 3102 or equiv or instr consent; Instructor: Khalek,Hisham A
Description: Arabic 5101 is a continuation of Arabic 3102 and the first in a two-course series. The course is designed to reinforce Arabic language skills learned in the beginning and intermediate levels and introduce new knowledge of diverse nature in order to advance language proficiency. In speaking, the course trains students to speak crisp and clear Arabic by presenting “news of the hour - akhbarus-saa’a” on varied topics and to understand and use complex and compound sentences. In reading, the course guides students to apply the dialectical marks when reading from scholarly textbooks and journals. Writing skills are enhanced by drafting weekly compositions, homework assignments, and translations. Listening exercises and drills are utilized in class as well as in the language lab by listening and watching audio and video materials. The course is also aimed at advancing students' knowledge of the cultures of the Arab world. The target audience is undergraduate and graduate students. The text is Al-Kitaab, Part three, by Brustad, Al-Batal, and Al-Tonsi.
Style: 10% Lecture, 10% Film/Video, 10% Discussion, 10% Laboratory, 20% Small Group Activities, 40% Student Presentation.
Grading: 15% final exam, 20% reports/papers, 25% quizzes,
15% written homework, 10% attendance, 5% in-class presentation, 10% laboratory evaluation. 

**Exam Format:** Reading comprehension, listening comprehension, Translations, and vocab knowledge.

**Architecture**

110 Rapson Hall

**ARCH 1701 The Designed Environment**

A-F only, 3 credit(s); 
Instructor: Lavine,Lance A

**Description:** Purpose: Arch 1701 is intended to introduce students with no prior academic experience in the field to the disciplines of architecture and landscape architecture. This class will be based on the assumption that these disciplines are idea-making enterprises. Its focus will be on the kinds of ideas that our constructed environments make and the way in which buildings and their landscapes participate in forming these constructs. Introduction: In this introductory course, special emphasis will be placed on why architecture and landscape architecture constitute unique ways in which people have formed ideas about the world that they construct to inhabit. The significance of architecture and landscape architecture is found, as it is in other arts, in an interpretation of the ideas that its constructions propose. These ideas necessarily cross many conventional boundaries of thought. They are at once utilitarian and symbolic, quantitative and qualitative, and material and metaphorical. The constructed environment provides an endless source of ideas that symbolically allow us to reside in nature with each other.

**ARCH 1701H Honors: The Designed Environment**

A-F only, 3 credit(s); prereq [Fr or soph] honors; 
Instructor: Lavine,Lance A

**Description:** Purpose: Arch 1701 is intended to introduce students with no prior academic experience in the field to the disciplines of architecture and landscape architecture. This class will be based on the assumption that these disciplines are idea-making enterprises. Its focus will be on the kinds of ideas that our constructed environments make and the way in which buildings and their landscapes participate in forming these constructs. Introduction: In this introductory course, special emphasis will be placed on why architecture and landscape architecture constitute unique ways in which people have formed ideas about the world that they construct to inhabit. The significance of architecture and landscape architecture is found, as it is in other arts, in an interpretation of the ideas that its constructions propose. These ideas necessarily cross many conventional boundaries of thought. They are at once utilitarian and symbolic, quantitative and qualitative, and material and metaphorical. The constructed environment provides an endless source of ideas that symbolically allow us to reside in nature with each other.

**ARCH 2301 Introduction to Drawing in Architecture**

A-F only, 4 credit(s); prereq Arch major; no prereq in summer credit will not be granted if credit received for: Arch 1501; 
Instructor: STAFF

**Description:** This course is meant to introduce an architectural way of visual thinking. It is also intended to familiarize the students with basic concepts of visual notation, techniques, and skills. The educational objectives of Arch 1301 are to enhance students' abilities to see visual phenomena such as space, light, and/or form; to teach students how to combine seeing with drawing in the way that is specific to the discipline and profession of architecture; to introduce drawing as a process of visual exploration; to introduce architectural concepts and systems of visual notations and the basic drawing skills and techniques (free-hand sketching and hard-line drafting). Note: Requirements may vary depending on the instructor who teaches a particular section. 

**Style:** 10% Lecture, 20% Discussion. drawing exercises

**Grading:** 20% class participation. 60% three graded reviews; 20% final assignment 

**Exam Format:** review of drawing

**ARCH 3250 Design Workshop**

A-F only, 1-6 credit(s), max credits 12, 6 completions allowed; prereq 2281, [Arch BA or BDA major]; 
Instructor: STAFF

**Description:** Student may contact the instructor or department for information.

**ARCH 3281 Undergraduate Architecture Studio I**

A-F only, 6 credit(s); prereq BS Arch major; 
Instructor: Clark, Dan

**Description:** Student may contact the instructor or department for information.

**ARCH 3301 Drawing for Design in Architecture**

A-F only, 3 credit(s); prereq [1301 or LA 1301 or 2301], [Arch or BED major]; 
Instructor: STAFF

**Description:** This is a follow-up course for Arch/LA 1301. It is intended to explore ways of seeing and ways of exploring concepts behind objects, buildings, and places. These explorations will include: historical and theoretical aspects of depicting architecture that may be found in paintings and architectural drawings; concepts of structure and order of form; conventional and experimental strategies for depicting space, light, and “time” (i.e. projection systems, multiple, and sequential drawings); pencil, pastels, and ink drawing techniques and skills. Though nothing will be “designed” in this course, the educational objective of this sequence of exercises is to introduce issues and develop skills which are essential for a design studio. Note: Requirements may vary depending on the instructor who teaches a particular section. 

**Style:** 10% Lecture, 20% Discussion. drawing exercises 

**Grading:** 25% class participation. 50% final portfolio; 25% final assignment 

**Exam Format:** review of drawings

**ARCH 3351 AutoCAD I**

3 credit(s); prereq Arch major or BED major or instr consent; Credit will not be granted if credit has been received for: ARCH 351; 
Instructor: Anderson,Kristine

**Description:** Basic concepts, tools, and techniques of computer-aided architectural design. An introduction to 2-D drawing capabilities. Use of dimensioning, layers, hatches, blocks, and symbols.

**ARCH 3381 Introduction to Computer Aided Architectural Design**

A-F only, 3 credit(s); prereq Arch major or BED major or instr consent; 
Instructor: Dozier,James

**Description:** Student may contact the instructor or department for information.

**ARCH 3411V Architectural History to 1750**

A-F only, 3 credit(s); prereq Soph or above; Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive; 
Instructor: Satkowski,Leon

**Description:** Student may contact the instructor or department for information.

**ARCH 3411W Architectural History to 1750**

A-F only, 3 credit(s); prereq Soph or above; Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive; 
Instructor: Satkowski,Leon

**Description:** This course investigates architecture broadly considered from Egypt to the early 18th century in Europe and the New World. The basic tenet of the course is the study of architecture and its relationship to the society in which it is created.
ARCH 3641 Introduction to Heritage Preservation
A-F only, 3 credit(s); prereq Arch major or instr consent;
Instructor: Chen, Arthur Hui-Min
Description: Student may contact the instructor or department for information.
Prerequisite: Arch major or instructor consent; A-F only, 3 credit(s), max credits 24, 6 completions allowed;
Instructor: Strothman, Susan C
Instructor: Paulsen, Kristen S
Description: Student may contact the instructor or department for information.
Prerequisite: Arch major or instructor consent; A-F only, 3 credit(s), max credits 24, 6 completions allowed;
Instructor: Dozier, James
Description: This class explores the use of 3-D computer modeling as a tool for representation in both abstract and realistic ways. Students will gain a good basic working knowledge of computer modeling software through assignments that include the creation and arrangement of objects, setting up lighting, developing surface materials, and creating still renderings and animations. The class also explores ways in which computer visualization can be used throughout the design process for: design exploration, feedback during the development of design ideas, and realistic representation of fully formed designs.
Instructor: Ladouceur, Janis Ruth
Description: Student may contact the instructor or department for information.
Prerequisite: Arch major; Credit will not be granted if credit has been received for: ARCH 5361;
Instructor: Donofrio, Gregory
Description: This class explores the potential of, and challenges to, heritage preservation in the United States. As a growing social movement and interdisciplinary field, heritage preservation's concepts and tools are now widely utilized by architects, planners, and other allied professionals and public advocates. Preservation is widely acknowledged to produce public benefits that include promotion of local, state, and national history; redevelopment of architecturally significant properties; cultural conservation of landscapes; and stimulation of community economic development. And yet there are some who question if preservation's “benefits” are socially equitable, or if it is really just gentrification in disguise. Preservation may also have important environmental benefits as one of the best-practices for architectural sustainability. Isn’t the building that already exists the greenest one of all? Students will critically evaluate preservation’s pros and cons from a number of different perspectives through lectures, readings, films, class discussions, assignments, and local field trips, drawing on case studies located in the Twin Cities, as well as New Orleans, Seattle, Boston, and New York City. Student Learning Outcomes: In this course, the student will be able to: * Know the history of the preservation movement in the United States and the broader historical context in which it developed. * Understand changes that have taken place over time in the objectives, theories, and methods of the historic preservation movement. * Learn contemporary preservation terms, practices, and laws. * Critically evaluate and debate current preservation norms, objectives, and policies through written assignments and class discussions. * Independently frame and research a final paper on a preservation-related topic, making use of both primary and secondary source materials.
Instructor: Lutz, James Martin
Description: Student may contact the instructor or department for information.
Prerequisite: Arch major; Credit will not be granted if credit has been received for: ARCH 5425;
Instructor: Miller, Nancy A
Description: Student may contact the instructor or department for information.
Prerequisite: Arch major; Credit will not be granted if credit has been received for: ARCH 5432;
Instructor: Ladouceur, Janis Ruth
Description: Student may contact the instructor or department for information.
Prerequisite: Arch major; Credit will not be granted if credit has been received for: ARCH 5432;
Instructor: Strothman, Susan C
Instructor: Mack, Robert Callan
Description: Student may contact the instructor or department for information.
Prerequisite: Arch major; Credit will not be granted if credit has been received for: ARCH 4511;
Instructor: Ladouceur, Janis Ruth
Description: Student may contact the instructor or department for information.
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Meet CLE req of Writing Intensive;
Description: Cities have to be made - thought about, desired, planned, engineered, built, lived in, and maintained. Throughout this process cities acquire layers of history, not just architectural history and the history of formal changes and development, but political, military, economic, and cultural history. Arch 4701, Introduction to Urban Form, grapples with these concepts and attempts to lay a foundation for ordering and understanding them.

ARCH 4731 Territorial City
A-F only, 3 credit(s); prereq instr consent ;
Instructor: Conway, William F
Description: Student may contact the instructor or department for information.

ARCH 5321 Architecture in Watercolor
A-F only, 3 credit(s); prereq M Arch grad student or instr consent ; Credit will not be granted if credit has been received for: ARCH 4321;
Instructor: Fogg, Monica
Description: Student may contact the instructor or department for information.

ARCH 5361 3-D Computer Architectural Modeling and Design
A-F only, 3 credit(s); prereq M Arch major; Credit will not be granted if credit has been received for: ARCH 4361;
Instructor: Dozier, James
Description: The class explores the use of 3D computer modeling as a tool for representation in both abstract and realistic ways. Participants will gain a good working knowledge of computer modeling software through assignments that include the creation, manipulation and arrangement of three-dimensional forms during the design of abstract environments, use of lighting as a design element, and development of surface materials as an integral part of a fully formed design. In addition the class explores ways in which computer visualization can be used throughout the design process - for design exploration, for feedback during the development of design ideas, and for realistic representation of fully formed designs. Assignments include still renderings and animations, along with research and writing components. The major assignment in this course entails creation of a detailed building model and animation which explores and presents a significant work of architecture.

ARCH 5381 Introduction to Computer Aided Architectural Design
A-F only, 3 credit(s); prereq Arch or BED or M Arch or grad student in LA or instr consent ;
Instructor: Dozier, James
Description: Student may contact the instructor or department for information.

ARCH 5411 Principles of Design Theory
A-F only, 3 credit(s); prereq M Arch major or instr consent;
Instructor: Fisher, Thomas Ray
Description: Student may contact the instructor or department for information.

ARCH 5425 Baroque Architecture
A-F only, 3 credit(s); prereq MS Arch or M Arch major or instr consent ; Credit will not be granted if credit has been received for: ARCH 4425;
Instructor: Satkowski, Leon
Description: Student may contact the instructor or department for information.

ARCH 5515 Technology One: Building Materials and Construction Systems
A-F only, 3 credit(s); prereq M Arch student;
Instructor: Roe, Sharon Louise
Description: Student may contact the instructor or department for information.

ARCH 5517 Technology Three: Structural Systems
A-F only, 3 credit(s); prereq M Arch student;
Instructor: Ibarra Sevilla, Benjamin
Description: Student may contact the instructor or department for information.

ARCH 5541 Material Strategies
A-F only, 3 credit(s); prereq M Arch or Arch MS major;
Instructor: Brownell, Blaine Erickson
Description: Student may contact the instructor or department for information.

ARCH 5621 Professional Practice in Architecture
A-F only, 3 credit(s); prereq M Arch major or instr consent;
Instructor: Cheng, Renee
Description: Student may contact the instructor or department for information.

ARCH 5670 Topics in Historic Preservation
3 credit(s), max credits 6; prereq MS Arch or M Arch major or instr consent;
Instructor: Chen, Arthur Hui-Min
Description: This course provides a global understanding of World Heritage, the nomination and management of sites, and design issues affiliated with historic preservation designation. Students should gain an understanding of design issues as they relate to historic properties, including sensitive alteration, adaptation of and additions to existing buildings. Case-studies link current practices, methods and solutions with expert preservationists, site conservationists and local communities in the cultural development and design of preservation proposals.

ARCH 5671 Historic Preservation
3 credit(s), max credits 6; prereq MS Arch or M Arch major or instr consent;
Instructor: Donofrio, Gregory
Description: This introductory course will provide, through readings and lectures, an overview of the theory and practice of heritage preservation-based community redevelopment and economics. Students will learn about financial aspects of real estate development (including economic incentives and constraints) by developing case studies of recent historic rehabilitation projects throughout Minnesota in which they examine details such as financial feasibility and compliance with design guidelines and other regulatory aspects often encountered in the adaptive reuse of historic properties. They will also consider financial incentives available in other states in an effort to understand how new policies in Minnesota might positively influence preservation activity.

ARCH 5673 Preservation Law
3 credit(s), max credits 6; prereq MS Arch or M Arch major or instr consent;
Instructor: Mack, Robert Callan
Description: 

ARCH 5731 Territorial City
A-F only, 3 credit(s);
Instructor: Conway, William F
Description: Student may contact the instructor or department for information.

ARCH 8251 Graduate Architectural Design I
A-F only, 9 credit(s); prereq MArch or instr consent ;
Instructor: Roe, Sharon Louise
Description: Student may contact the instructor or department for information.

ARCH 8253 Graduate Architectural Design III
A-F only, 9 credit(s); prereq [8251, MArch] or instr consent ;

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
ARCH 8255 Graduate Architectural Design V
A-F only, 6 credit(s); max credits 12; prereq [8254, grad Arch major] or instr consent;
Instructor: Conway, William F
Description: Student may contact the instructor or department for information.

ARCH 8561 Sustainable Design Theory and Practice
A-F only, 3 credit(s); prereq [5513, [grad MS or MArch]] or instr consent;
Instructor: Guzowski, Mary M
Description: Architectural design can have a profound influence on the human capacity to create a more sustainable future. This course investigates the theory and practice of sustainable design processes and methods with an emphasis on contemporary and emerging approaches to sustainable architecture. The seminar provides students an opportunity to study sustainable design theory inside and outside the design disciplines and to explore how they influence practice and inform design thinking. The class will provide an overview of sustainable design through readings, local field studies, case study research, and class discussions. Students will develop an understanding of the emerging theories of sustainability and how they connect directly to everyday practice. We will explore how the environment, economy, and equity interact to inform sustainable design thinking and practice. The goals of the course are to provide: Knowledge of ecological design theories and practices that shape sustainable design; Framework, context, and tools for evaluating sustainable design theory and practice; Lessons from exemplary precedents and hands-on experience of sustainable design through fieldwork; An opportunity for students to develop their own sustainable design theory for research and practice;

ARCH 8567 Site and Water Issues in Sustainable Design
A-F only, 3 credit(s); prereq [5512, [grad MS or MArch student]] or instr consent;
Instructor: Strong, Richard B.
Description: This course looks at the issues of water in relation to buildings, sites and sustainable use of water. The ?Urban Water Cycle? will be used to calibrate the sustainable use of urban water resources. Water balance formulas as well as water use calculators and sustainable tools will be used to mitigate the impacts of development on the existing urban water cycle. The class will look at water at both a watershed and site scale comparing existing water infrastructure with a new concepts of sustainable water strategies. This is a research course but all the class's exercises are design oriented. Students will have to apply the contents of the course to a design problem that required the student solve the interior and exterior impacts of urban water using design solutions.

ARTS 1001 Concepts in Visual Art
4 credit(s);
Instructor: STAFF
Description: Concepts of visual art-making in contemporary and historical contexts. The media, environment, and concerns of the practicing artist. Creative process, visual expression, criteria. Aesthetic foundation for beginning studio courses. Visiting artists, museum and gallery visits, creative presentations. Required of all art majors.

ARTS 1101 Drawing
4 credit(s); Meets CLE req of Arts/Humanities;
Instructor: STAFF
Description: Introduction to fundamental principles and processes of drawing; exploration of various drawing media.

ARTS 1002 Painting
4 credit(s); prereq 1101 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: STAFF
Description: Introduction to painting with attention to understanding and applying the fundamental principles of spatial organization and color interaction.

ARTS 1301 Sculpture
4 credit(s); Meets CLE req of Arts/Humanities;
Instructor: STAFF
Description: An introduction to sculptural practice examining materials, methods, concepts, and history with emphasis on the correlation between concepts and materials. Work in clay, plaster, metal, and wood.

ARTS 1501 Printmaking: Intaglio and Lithography
4 credit(s); Meets CLE req of Arts/Humanities;
Instructor: STAFF
Description: 1501-005 Introduction to Printmaking: Relief and Intaglio. This is an introductory course that explores the concepts and techniques of intaglio processes and relief approaches of woodcut and linoleum as fine art. Students acquire skill and understanding into the aesthetics of of the print, the role of the multiple and the nature of graphics as it relates to personal expression. Familiarization to strategies and concepts of printmaking through historical and contemporary usage is addressed. Emphasis on understanding the interrelationship of process, materials and ideas. This course is designed for undergraduate students across disciplines. It introduces techniques artists employ in the development of visual statements. Hands-on involvement in the production of artwork. Style: 40% Lecture, 30% Discussion, 30% Laboratory. Grading: 15% mid exam, 10% reports/papers, 25% class participation, 50% other evaluation, creative engagement Exam Format: short answer, multiple choice

ARTS 1502 Printmaking: Relief, Screen, and Digital Processes
4 credit(s); Meets CLE req of Arts/Humanities;
Instructor: STAFF
Description: Introduction to techniques of relief (linoleum and woodcut), screenprint and digital printmaking. Historical approaches and use through contemporary materials, concepts and practices. Emphasis on the interrelationship of process, materials and ideas.

ARTS 1601 Experimental and Media Arts
4 credit(s); Meets CLE req of Arts/Humanities;
Instructor: STAFF
Description: This course is intended for the beginning level or non-experienced student interested in exploring new tools, technologies and processes in electronic and digital art. The class includes assignments focused on digital imaging making, digital video, digital sound, digital animation, interactive processes and basic programming languages. Students will explore the developing aesthetic and theoretical domains presented with the integration of new technologies into creative art practice. Style: 20% Lecture, 20% Discussion. 60% creative art production Grading: 10% in-class presentation, 20% class participation, 70% other evaluation. Production and critical evaluation of student art projects

ARTS 1701 Photography
4 credit(s); Meets CLE req of Arts/Humanities;
Instructor: STAFF  
Description: Course presents conceptual, technical, and historical aspects of photography within the fine arts context. Emphasis on the creative process through hands-on experience in use of camera, film development, enlarging, and printing. Silver processes. Student needs a 35mm, single lens reflex film camera.

Style: 25% Lecture, 25% Discussion, 50% Laboratory.
Grading: 15% mid exam, 30% final exam, 20% in-class presentation, 25% laboratory evaluation, 10% problem solving.
Exam Format: performance

ARTS 1702 Digital Photography  
4 credit(s); Meets CLE req of Arts/Humanities;  
Instructor: STAFF  
Description: Introduction to conceptual, technical and historical aspects of photography as a creative medium using digital technology. Digital image capture, related software, digital output and studio procedures. Historical issues, contemporary practice.

ARTS 1801 Ceramics  
4 credit(s); Meets CLE req of Arts/Humanities;  
Instructor: STAFF  
Description: Fundamentals of wheel-thrown and hand-built ceramics as forms of creative expression. Introduction to clay, glazes, and firing techniques.

ARTS 1801 Ceramics  
4 credit(s); Meets CLE req of Arts/Humanities;  
Instructor: Lane,Thomas J  
Description: Fundamentals of wheel-thrown and hand-built ceramics as forms of creative expression. Introduction to clay, glazes, and firing techniques.

ARTS 1905 Freshman Seminar: Our Lives in Image and Text  
A-F only, 3 credit(s); prereq freshman;  
Instructor: Lyon,Joyce  
Description: Student may contact the instructor or department for information.

ARTS 1905 Freshman Seminar: Transformation of the Commonplace  
A-F only, 3 credit(s); prereq freshman;  
Instructor: Rose,Thomas Albert  
Description: The transformation of the Commonplace As all knowledge begins with experience and since visual experience is primary and is prior to the verbal, the arts are the core of the humanities. All other disciplines spring from the philosophical questions arising from the attempt to understand our various experiences in the world. In art, making and doing precede theory. The discipline of art involves the various ways artists create and discover knowledge, artistic truth, and the concept of beauty. Art is a discipline that allows the student to compare direct experience with judgment and the formation of values, thus art teaches a cross-disciplinary methodology that can be applied in life regardless of a later career path. ? The core values of art promote social awareness and encourage individual growth of students through a broad range of readings, discussions and experiences designed to provoke dialogue. Through practice, visual lectures, demonstrations, texts, readings, visits to museums and galleries, and visiting artist presentations students will discover the relationships between media, content, process and methodology to become aware of how artists go about selecting their means of expression. ? Through visually illustrated lectures, direct experience with objects in the department?s galleries and the Weisman Museum, in critique, and through discussion students locate and see how art reflects not only the art community, but the larger cultural community as well. This comparison reveals one of the contemporary arts primary values, how tradition is used to violate and create new traditions. Readings: Arthur C. Danto: The Transfiguration of the Common Place Sarah Thornton: Seven Days in the Art World  
Style: 60% Discussion, 10% Small Group Activities, 30% Student Presentation.
Grading: 60% reports/papers, 10% attendance, 10% in-class presentation, 20% class participation, involvement in the readings and interest in critical analysis

ARTS 1905 Freshman Seminar: The Art of Collaboration  
A-F only, 3 credit(s); prereq freshman;  
Instructor: Sommers,Michael J  
Description: This introductory seminar presents the characteristics and challenges of collaboration through three representative approaches drawn from visual arts, music, and theater. The course unfolds around concrete problematic situations arising from a collaborative and multimedia-enhanced project.

ARTS 3101 Intermediate Drawing  
4 credit(s); prereq 1001, 1101 Note: Students without stated prerequisites will not be allowed to continue in this course.;  
Instructor: Sugnet,Anne Elizabeth  
Description: Student may contact the instructor or department for information.

ARTS 3102 Intermediate Painting  
4 credit(s); prereq 1001, 1101, 1102 Note: Students without stated prerequisites will not be allowed to continue in this course.;  
Instructor: Kuhr,Alexis  
Description: Student may contact the instructor or department for information.

ARTS 3102 Intermediate Painting  
4 credit(s); prereq 1001, 1101, 1102 Note: Students without stated prerequisites will not be allowed to continue in this course.;  
Instructor: Feinberg,David L  
Description: Student may contact the instructor or department for information.

ARTS 3107 Drawing Using Digital Media as an Essential Tool  
4 credit(s); prereq 1001, 1101;  
Instructor: Katzfisicas,Diane  
Description: Description: Drawing using digital media as an essential tool. In this course, we will explore the possibilities of digital technology as an essential tool and component in contemporary drawing. Frameworks for projects will be proposed. These will be concept based with a focus on history and place. The purpose is that proposed projects guide an investigation of representation and aesthetic discourse and help expand both the content and context of your present work. Our approach will be mixed media, utilizing the digital technology available as art making tools and as an important component will be used to expand upon "handmade" images that are already part of your repertoire in past works. To 'draw' on digital works with other media using the skill and expression of an artist (painters, sculptors, etc. etc.) To explore the variations of 'what if?' that are so easily afforded by digital techniques? Our discussion in critique will focus on developing an "open set" of concerns, examining the means of representation (WHY and HOW DID you do that?) as well as the meaning, interpretation and ethics of images (How do we RESPOND?). The emphasis will be on examining substance as well as the production of images. Your output should be appropriate to the idea and the images that result: from posting your work digitally to printing onto a variety of surfaces (rag paper, poly films, vinyl, transparent plastics, canvas, fabric). There will be six class projects. Each project will be reviewed, critiqued and graded. These projects are 70% of your grade. Classroom participation 15%. Attendance 15%. Class Time: 30% Discussion, 50% Laboratory. demos; 10% artist presentations/field trips (Weisman/ Walker Art Center Library/ MCBA)
ARTS 3302 Sculpture: Spatial Problems
4 credit(s); prereq 1001, 1301 Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Rose, Thomas Albert
Description: Virtual space and the nature of Place the course will explore the construction of space, physical and virtual, using various media as means to represent hypothetical spaces. Combined with sound the work will be presented either as a screened projection or images constructed of photo fragments. The technology behind 3D imaging will be discussed and demonstrated by former 3M engineer Charles Lee in a two day workshop. Readings, discussions and site visits will be part of the course. Students may develop work in any medium of their choosing; including photography, video, and constructed or fabricated material. As this is a studio course and not an art history course these concepts will be studied in relation to the work being developed by the student. The intention of this class is to introduce students to self directed project work and to focus on individual project development. The general topic is how spatial conditions may be used to determine the structures, media, and methods employed by each student. Sculpture is a spatial art, and like architecture, develops connections to place. Students are encouraged to work in media outside of their experience and to explore new themes in their work. The structure of the class is organized around discussion and critique of work developed individually and in studio. The format is open and casual with students able to work independently. No specific material or media is stressed.
Style: 25% Discussion, 60% Studio, 15% Guest Speakers. Classroom is very informal and non structured, students must be able to work independently.
Grading: 60% special projects, 10% reflection paper, 20% class participation, 10% problem solving, projects are developed and critiqued weekly.
Exam Format: class critiques

ARTS 3303 Sculpture: Metalcasting
4 credit(s); prereq 1001, 1301 Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: STAFF
Description: Make cast metal sculpture in the new state-of-the-art University of Minnesota Sculpture Foundry in the new Regis Center for Art. Metalcasting of Sculpture is an intensive course where you will be asked to think creatively with cast aluminum, bronze, and iron. Prerequisites: ArtS 1301 Basic Sculpture and ArtS 1101 Introduction to Visual Arts. Required Text: "Hot Metal--A Complete Guide to the Metalcasting of Sculpture," Potratz. Available at bookstore or on reserve in Wilson Library. Slide lectures, demonstrations, critiques, discussion, and studio work. Course fee covers most materials, but you may need to spend more depending on the size of your sculpture. Safety equipment required. Three assignments resulting in three cast metal sculptures, quiz on text, 2-3 page paper, visiting artists, mid-term and final critiques. Sand molding, ceramic shell molding, and other molding processes used to make creative work. Required lab for Fall evening course; see schedule for the day and time. Spring course requires participation in the Annual Minnesota Iron Pour. Expect to spend at least 6 hours per week outside of class working on your sculpture.
Style: 5% Lecture, 10% Discussion, 85% Studio. Demonstrations, critique, studio work in the foundry.
Grading: 20% reports/papers, 10% quizzes, 60% other evaluation. Creative work in Cast Metal
Exam Format: project critique

ARTS 3304 Sculpture: Carving and Construction
4 credit(s); prereq 1001, 1301 Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Stanislav, Andrea
Description: This course is an intermediate/advanced exploration of contemporary sculptural practices and materials, through concepts of carving and construction/deconstruction. There will be an emphasis on defining your personal creative vision through studio practice, research, and critical thinking. Class projects will examine a broad range of material exploration, methods of building/structural formations, systems, permanence/impermanence, and installation. Students will also engage in class research presentations, class critiques, field trips, guest artist lectures, assigned readings. You will be expected to fully investigate your creative ideas while challenging and questioning the roles that contemporary sculpture plays in contemporary society. Students are responsible for three sculpture projects, a research paper, with an accompanying research presentation.
Style: 5% Lecture, 20% Discussion, 10% Student Presentation, 5% Field Trips, 60% Studio.
Grading: 5% reports/papers, 70% additional semester exams, 5% attendance, 5% journal, 5% in-class presentation, 10% class participation.
Exam Format: project critique

ARTS 3306 Performance Art and Installation
4 credit(s); prereq 1001, 1301 Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Lukkas, Lynn Tjerman
Description: Arts Performance Art and Installation: Spring 2009 this course will collaborate with performance/theater artist David Gordon in his CGLA courses and new work, "Un-Civil Wars" to be presented at the Walker Art Center in March 2009; and with Ain Gordon's new work "The Storm Show." Students will investigate "Live Art" practices and create original works that integrate performance, installation, media arts and socially engaged art practices. Presentations and screenings of hybrid art forms introduced by Dada movement in 1920s, continued by Fluxus movement in 1950s, to today's contemporary Live Art and Performance artists will be included.

ARTS 3444 Major Project
S-N only, 1-3 credit(s), max credits 3, 1 completion allowed; prereq instr consent
Instructor: STAFF
Description: The major project in Art is intended to be a
“capstone” experience for the senior majoring in Art. It is a required course for graduation with a major in art. All BA students majoring in art will participate in a group exhibition in the Regis Center Public Spaces scheduled near the end of the graduating semester. The student can include work in any format, from previous or current courses or independent studies, that they consider representative of their best work. The minimum experience (1 credit) involves participation in a series of meetings with the DUS at pre-announced times. At these meetings, students develop professional skills (preparation of resume, artist's statement, exhibition protocols, etc). Students also attend a variety of departmental presentations, visiting artist lectures, exhibitions. A second option is for students who want to self-design a project (1-3 credits) with an individual, regular faculty member. Through the self-designed project, students are encouraged to clarify their own visual concepts. For the individually designed experience, students must complete the Major Project Proposal Contract available from the Art Advising Office, E223 Regis Center.

ARTS 3496 Internship in the Arts
S-N only, 1-3 credit(s), max credits 3, 1 completion allowed; prereq BFA Art major, instr consent; Instructor: STAFF
Description: The internship requirement for students in the BFA Art program may be satisfied through field work at local, regional or national arts organizations or with professional artists. BFA candidates gain experience in activities or in the administration of art or art-based organizations. Student and host organization or artists file a mutual contract approved by the student's BFA Faculty Mentor prior to registration; student and host provide written evaluation of the internship experience at the end of the specified experience.

ARTS 3510 Intermediate Printmaking: Traditional and Contemporary Approaches
4 credit(s), max credits 8; prereq 1001, [1501 or 1502]; Instructor: Krepps, Jerald A
Description: Student may contact the instructor or department for information.

ARTS 3602 Narrative Digital Video
4 credit(s); prereq 1001W, 1601 Note: Students without stated prerequisites will not be allowed to continue in this course.; Instructor: Lukkas, Lynn Tjernan
Description: This course will focus on experimental forms of video art, including experimental non-narrative video, video installation, and video combined with live art works. Students will have the opportunity to explore the aesthetic and conceptual intersections between Film and Art while producing original works that explore contemporary digital technologies alongside super 8 filmmaking. Presentations and screenings of experimental film and video art work from 1900 to the present will be included.

ARTS 3604 Animation
4 credit(s); prereq 1001W, 1601 Note: Students without stated prerequisites will not be allowed to continue in this course.; Instructor: Paul, Stephen
Description: Student may contact the instructor or department for information.

ARTS 3605 Sound Art
4 credit(s); prereq 1001W, 1601; Instructor: Willow, Diane
Description: Sound Art shapes aesthetic space and time. It is an interdisciplinary media genre that relates the visual arts and music but is neither music nor visual art. We will investigate the powerful capacity of sound to shift our perception through the experience of listening and the process of producing sound art. A range of creative explorations and technologies will be introduced to engage you in the artistic process of realizing your individual and collaborative ideas with sound. We will take an experimental approach to this hybrid form of contemporary art.

The experience of listening as well as a series of sonic explorations and sound sketches, an artist presentation, two sound art projects and one independent project will provide opportunities for you to develop basic fluency with the process of creating your artistic language with sound. Selected readings, responses, and discussions will broaden and deepen your understanding of the emergence and practice of this hybrid form of contemporary art. The content of this course evolves according to the interests of the participating students. The collective endeavors of this semester-long investigation will be documented and archived on the course blog through the active participation of all students.

ARTS 3701 Photography: Silver Processes
4 credit(s); prereq 1001, 1701 Note: Students without stated prerequisites will not be allowed to continue in this course.; Instructor: Henkel, James V
Description: This course is designed to involve the student in issues relating to photography as a descriptive art making tool. Students will be expected to apply testing of materials and darkroom techniques to a variety of assignments which are designed to explore thematic topics which are traditional to photographic practice in a contemporary and innovative way. A large percentage of this class involves the mastery of craft and skill based approaches to traditional black and white photographic materials. A historical overview as well as contemporary approaches will be presented. A 35 mm single lens reflex or larger format film style film camera is necessary for this class.

ARTS 3702 Photography: The Extended Image
4 credit(s); prereq 1001, 1701 Note: Students without stated prerequisites will not be allowed to continue in this course.; Instructor: Millikan, Jeffrey B
Description: Student may contact the instructor or department for information.

ARTS 3703 Photography: Digital Imaging
4 credit(s); prereq 1001, 1701 Note: Students without stated prerequisites will not be allowed to continue in this course.; Instructor: Rainio, Minna Kristiina
Description: Student may contact the instructor or department for information.

ARTS 3801 Ceramics: Wheel Throwing
4 credit(s), max credits 8; prereq 1001, 1801 Note: Students without stated prerequisites will not be allowed to continue in this course.; Instructor: Pharis, Mark W
Description: Student may contact the instructor or department for information.

ARTS 3802 Ceramics: Handbuilding
4 credit(s), max credits 8; prereq 1001, 1801 Note: Students without stated prerequisites will not be allowed to continue in this course.; Instructor: Lane, Thomas J
Description: Student may contact the instructor or department for information.

ARTS 5107 Advanced Drawing Using Digital Media
4 credit(s); prereq 3107 or instr consent; Instructor: Katastivas, Dianna L
Description: Drawing using digital media as an essential tool. In this course, we will explore the possibilities of digital technology as an essential tool and component in contemporary drawing. Frameworks for projects will be proposed. These will be concept based with a focus on history and place. The purpose is that proposed projects guide an investigation of representation and aesthetic discourse and help expand both the content and context of your present work. Our approach will be mixed media, utilizing the digital technology available as art making tools and as an important component will be used to expand upon “handmade” images that are already part of your repertoire in past works. To ‘draw’ on digital works with other media using the skill and expression of an artist
(painters, sculptors, etc. etc.) To explore the variations of 'what if?' that are so easily afforded by digital techniques? Our discussion in critique will focus on developing an "open set" of concerns, examining the means of representation (WHY and HOW DID you do that?) as well as the meaning, interpretation and ethics of images (How do we RESPOND?). The emphasis will be on examining substance as well as the production of images. Your output should be appropriate to the idea and the images that result: from posting your work digitally to printing onto a variety of surfaces (rag paper, poly films, vinyl, transparent plastics, canvas, fabric). There will be six class projects. Each project will be reviewed, critiqued and graded. These projects are 70% of your grade. Classroom participation 15%. Attendance 15%. Class Time: 30% Discussion, 50% Laboratory, demos; 10% artist presentations/field trips (Weisman/ Walker Art Center Library/ MCBA)

ARTS 5110 Advanced Drawing
4 credit(s), max credits 12, 4 completions allowed; prereq 3101 or 3111 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Lyon, Joyce
Description: Student may contact the instructor or department for information.

ARTS 5120 Advanced Painting
4 credit(s), max credits 12, 4 completions allowed; prereq 3102 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Frank, Valene Vernon
Description: Student may contact the instructor or department for information.

ARTS 5120 Advanced Painting
4 credit(s), max credits 12, 4 completions allowed; prereq 3102 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Feinberg, David L
Description: Student may contact the instructor or department for information.

ARTS 5320 Advanced Sculpture: Spatial Problems
4 credit(s), max credits 12, 4 completions allowed; prereq 3302 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Rose, Thomas Albert
Description: Virtual space and the nature of Place the course will explore the construction of space, physical and virtual, using various media as means to represent hypothetical spaces. Combined with sound the work will be presented either as screened projection or images constructed of photo fragments. The technology behind 3D imaging will be discussed and demonstrated by former 3M engineer Charles Lee in a two day workshop. Readings, discussions and site visits will be part of the course. Students may develop work in any medium of their choosing; including photography, video, and constructed or fabricated material. As this is a studio course and not an art history course these concepts will be studied in relation to the work being developed by the student. The intention of this class is to introduce students to self directed project work and to focus on individual project development. The general topic is how spatial conditions may be used to determine the structures, media, and content employed by each student. Sculpture is a spatial art, and like architecture, develops connections to place. Students are encouraged to work in media outside of their experience and to explore new themes in their work. The structure of the class is organized around discussion and critique of work developed individually and in studio. The format is open and casual with students able to work independently. No specific material or media is stressed.

Style: 25% Discussion, 60% Studio, 15% Guest Speakers. class is very informal and non structured, students must be able to work independently.

Grading: 60% special projects, 10% reflection paper, 20% class participation, 10% problem solving. projects are developed and critiqued weekly

Exam Format: class critiques

ARTS 5330 Advanced Sculpture: Metal Casting
4 credit(s), max credits 12, 4 completions allowed; prereq 3303 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Potratz, Wayne E
Description: Metal casting of Sculpture is a course where you are asked to think imaginatively and work creatively with a wide variety of materials. The typical student makes three sculptures, one cast in aluminum, one cast in bronze, and one iron casting. Mold materials include resin bonded sand, ceramic shell, green sand, or other sand molding systems. The course is conducted in the University of Minnesota Sculpture Foundry, one of the finest metalcasting facilities at the university level in the nation; the foundry features a 75 KW Induction furnace. Each semester, the coke-fired cupola is used for an iron pour, which includes guest artists from around the country. This is an advanced sculpture course with an emphasis on the development of personal imagery in sculpture. At the 5000 level, the course operates more like a tutorial; you should be well on the way to setting your own goals for your work, both conceptually and technically. Thus the assignments do not dictate subject matter. Be prepared to articulate what you want to accomplish within the semester. This fall semester, the course will also explore the Tataran, an ancient Japanese process for making steel directly from Iron Ore. Students will have the opportunity to assist in the building and firing of a clay tatar in the month of October. Participants will receive a portion of the steel made

Style: 5% Lecture, 5% Discussion, 10% Demonstration, 75% Studio, 5% Guest Speakers. This is NOT a topics course!!

Grading: 10% reports/papers, 10% attendance, 5% class participation, 75% other evaluation. Paper is related to the readings and your own work in sculpture.

Exam Format: Final critique of sculpture produced

ARTS 5340 Advanced Sculpture: Carving and Construction
4 credit(s), max credits 12, 4 completions allowed; prereq 3304 Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Stanislav, Andrea
Description: Student may contact the instructor or department for information.

ARTS 5360 Advanced Performance Art and Installation
4 credit(s), max credits 12, 4 completions allowed; prereq 3306 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Lukkas, Lynn Tjerman
Description: Student may contact the instructor or department for information.

ARTS 5400 Seminar: Concepts and Practices in Art
3 credit(s), max credits 6; prereq BFA candidate or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Larson, Chris
Description: Student may contact the instructor or department for information.

ARTS 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Phairs, Mark W
Description: Student may contact the instructor or department for information.

ARTS 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Lyon, Joyce
Description: Student may contact the instructor or department for information.

ARTS 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Lukkas, Lynn Tjerman
Description: Student may contact the instructor or department for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
ARTS 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Feinberg, David L
Description: Student may contact the instructor or department for information.

ARTS 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Katsiiafi, Diane
Description: Student may contact the instructor or department for information.

ARTS 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Henkel, James V
Description: Student may contact the instructor or department for information.

ARTS 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Rose, Thomas Albert
Description: Student may contact the instructor or department for information.

ARTS 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Gray, Lynn Arlyn
Description: Student may contact the instructor or department for information.

ARTS 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Potratz, Wayne E
Description: Student may contact the instructor or department for information.

ARTS 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Krepps, Jerald A
Description: Student may contact the instructor or department for information.

ARTS 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Kuhr, Alexis
Description: Student may contact the instructor or department for information.

ARTS 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Yamada, Tetsuya
Description: Student may contact the instructor or department for information.

ARTS 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Willow, Diane
Description: Student may contact the instructor or department for information.

ARTS 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Schmid, Jenny
Description: Student may contact the instructor or department for information.

ARTS 5490 Workshop in Art: Puppetry Technique Practice in Contemporary Theatre
3 credit(s), max credits 12, 12 completions allowed;
Instructor: Sommers, Michael J
Description: Student may contact the instructor or department for information.

ARTS 5490 Workshop in Art: CrossMedia Real Time Programming in Max/MSP/Jitter
3 credit(s), max credits 12, 12 completions allowed;
Instructor: Momeni, Ali
Description: This course is intended for visual artists, musicians, designers, computer scientists, engineers and architects (among others) interested in exploring real-time interactive software applications. Such applications allow translations/interactions among various media; examples include sound to video (e.g. music visualizers); gesture to sound (e.g. the theramin, Wii controllers as musical instruments); gesture to video (e.g. motion tracking for interactive visualizations, interactive architecture), interactive sculptures (e.g. sensor controlled mechanics, robotics, lights, LEDs). The Max/MSP/Jitter new media programming environment will be the primary instrument of the course. Max/MSP/Jitter is a graphical programming environment that provides user interface, timing, communication with electronics, communications with the web, MIDI support, real-time audio and video synthesis and processing. The course will be a rigorous boot-camp for this instrument; after the initial introduction in the first third of the semester, the course will be project-based where each student will develop several independent projects/works/experiments. The course is offered as an upper-level undergraduate/lower-level graduate rank. In-class meeting hours will be similar to those of studio courses in the Art Department, i.e. two three-hour sessions per week. Like other studio courses, much of that time will be spent on supervised individual work. In addition to the 6 weekly in-class hours, students are expected to considerable time outside of class mastering this powerful instrument. Students are encouraged to collaborate with one-another; collaborations with the instructor are also possible. Familiarity and comfort with laptop-based technology is a pre-requisite; this includes experience any of a variety of desktop publishing tools (Photoshop, Illustrator, Flash, Dreamweaver, GoLive, QuickTime, Final Cut) as well as a general sense of interest and curiosity in the creative potentials of the laptop and software platforms. Previous programming experience of any kind is welcomed but not required. Similarly previous experience with Max/MSP/Jitter is not required but also welcomed.

ARTS 5510 Advanced Printmaking
4 credit(s), max credits 12, 3 completions allowed; prereq 3510 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Schmid, Jenny
Description: This class offers students the opportunity to develop their work by exploring advanced techniques including photo-lithography, mono-printing, polyester plates and the use of color in multiple layers. Students will be introduced to contemporary printmakers and conceptual issues through
several slide lectures: Intensive critiques will also be integral to the functioning of this class. Students are expected to be self-motivated and have a committed studio practice in order to develop an advanced body of work.

ARTS 5620 Narrative Digital Video
4 credit(s), max credits 12, 3 completions allowed; prereq 3602 Note: Students without stated prerequisites will not be allowed to continue in this course.
Instructor: Lukkas, Lynn Tjerman
Description: This course will focus on experimental forms of video art, including experimental non-narrative video, video installation, and video combined with live art works. Students will have the opportunity to explore the aesthetic and conceptual intersections between Film and Art while producing original works that explore contemporary digital technologies alongside super 8 filmmaking. Presentations and screenings of experimental film and video art work from 1900 to the present will be included.

ARTS 5640 Advanced Animation
4 credit(s), max credits 12, 3 completions allowed; prereq 3604 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.
Instructor: Paul, Stephen
Description: Student may contact the instructor or department for information.

ARTS 5650 Advanced Sound Art
4 credit(s), max credits 12, 3 completions allowed; prereq 3605;
Instructor: Willow, Diane
Description: Student may contact the instructor or department for information.

ARTS 5710 Advanced Photography
4 credit(s), max credits 12, 3 completions allowed; prereq Two semesters of 3xxx photography or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.
Instructor: Rainio, Minna Kristiina
Description: Advanced Photography: Found and reused. The memories and histories of images. "Photography is a social institution that, since its inception, has been a key site of collective remembering. Like film and television, photographic images increasingly meditate our collective experience and memory of events and such is their cultural currency that we tend to accept their memory-images as our own," Nancy Wood "how we use films and other images and representations to make ourselves, how we construct our own histories through memory, even how we position ourselves within wider, more public, histories." Annette Kuhn This course examines the influence of images, especially photographs, on the ways we remember our individual and collective pasts. During the course we look at the work of artists who have used archive photographs or found imagery as part of their own artwork and artists who have dealt with personal or collective memories in their work. The course also includes assigned readings related to the themes of photography, history and memory. During the course students will plan and complete a project that uses existing or found images as a starting point, or in combination with direct photography, text etc. The finished work can be a series of photographs, an installation, a book, or an artwork in some other form. The course consists of lectures, seminar discussions, assigned readings and students' presentations. This is a topics-based section of advanced photography that combines research and art practice. Students must be technically proficient enough to work independently on their individual projects in photography or other media, as class time will focus on ideas, readings and group critiques rather than technical processes.
Style: 10% Lecture, 5% Film/Video, 35% Discussion, 5% Student Presentation, 30% Studio, 15% Guest Speakers. Class will be a mix of readings, discussion, slide lectures, video screenings, critique, and visiting artist speakers. This is not a technical course but an informed studio, seminar-style course.

ARTS 5810 Advanced Ceramics
4 credit(s), max credits 12, 4 completions allowed; prereq [3801, 3802, 3810] or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.
Instructor: Yamada, Tetsuya
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Pharis, Mark W
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Lyon, Joyce
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Lukkas, Lynn Tjerman
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Feinberg, David L
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Katsiaficas, Diane
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Henkel, James V
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Rose, Thomas Albert
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Lane, Thomas J
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Pharis, Mark W
Description: Student may contact the instructor or department for information.
ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Potratz, Wayne E
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Krepps, Jerald A
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Kuhr, Alexis
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Estep, Jan
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Yamada, Tetsuya
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Willow, Diane
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Stanislav, Andrea
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Schmid, Jenny
Description: Student may contact the instructor or department for information.

ARTS 5990 Independent Study in Art
1-4 credit(s), max credits 12, 4 completions allowed; prereq Major, completed regular course with instructor, instr consent;
Instructor: Momeni, Ali
Description: Student may contact the instructor or department for information.
ARTS 8700 Photography: Theory and Practice
1-9 credit(s), max credits 12, 4 completions allowed;
Instructor: Estep, Jan
Description: Contemporary issues in the production of photographic images. Generally restricted to graduate students in the Department of Art MFA program. Please contact instructor for permission to register for this course.

ARTS 8800 Ceramics: Theory and Practice
A-F only, 3 credit(s), max credits 12, 4 completions allowed;
Instructor: Yamada, Tetsuya
Description: Student may contact the instructor or department for information.

ARTS 8990 M.F.A. Creative Thesis
1-9 credit(s), max credits 18, 18 completions allowed; prereq
Art MFA candidate, passed oral/written prelim, instr consent;
Instructor: Feinberg, David L
Description: Student may contact the instructor or department for information.

ARTS 8990 M.F.A. Creative Thesis
1-9 credit(s), max credits 18, 18 completions allowed; prereq
Art MFA candidate, passed oral/written prelim, instr consent;
Instructor: Krepps, Jerald A
Description: Student may contact the instructor or department for information.

ARTS 8990 M.F.A. Creative Thesis
1-9 credit(s), max credits 18, 18 completions allowed; prereq
Art MFA candidate, passed oral/written prelim, instr consent;
Instructor: Potratz, Wayne E
Description: Student may contact the instructor or department for information.

ARTS 8990 M.F.A. Creative Thesis
1-9 credit(s), max credits 18, 18 completions allowed; prereq
Art MFA candidate, passed oral/written prelim, instr consent;
Instructor: Rose, Thomas Albert
Description: Student may contact the instructor or department for information.

ARTS 8990 M.F.A. Creative Thesis
1-9 credit(s), max credits 18, 18 completions allowed; prereq
Art MFA candidate, passed oral/written prelim, instr consent;
Instructor: Katsiaficas, Diane
Description: Student may contact the instructor or department for information.

ARTS 8990 M.F.A. Creative Thesis
1-9 credit(s), max credits 18, 18 completions allowed; prereq
Art MFA candidate, passed oral/written prelim, instr consent;
Instructor: Henkel, James V
Description: Student may contact the instructor or department for information.

ARTS 8990 M.F.A. Creative Thesis
1-9 credit(s), max credits 18, 18 completions allowed; prereq
Art MFA candidate, passed oral/written prelim, instr consent;
Instructor: Yama da, Tetsuya
Description: Student may contact the instructor or department for information.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 201</td>
<td>Art History</td>
<td>3</td>
<td>This course introduces students to the art history of indigenous peoples from Mexico, Central America, and South America before the arrival of Europeans. We will study their prolific artistic production starting with their earthworks in the deserts of Peru and ending with their stone pyramids and painted codices of Guatemala and Mexico. We will critically</td>
<td>Yamada, Tetsuya</td>
</tr>
<tr>
<td>ARTH 3005</td>
<td>Pre-Columbian Art of the Americas</td>
<td>4</td>
<td>This course introduces students to the art history of ancient cultures which contributed to the development of western civilization; namely, Egyptian, Babylonian, Assyrian, Phoenician, Aegean, Etruscan, Roman, and Early Christian/Byzantine. The lectures will focus on a selection of important works, but will include discussions of appreciation and style as well as the larger social, religious and visual ideas of early cultures. The requirements of the course are geared for students with no previous experience or study in this discipline.</td>
<td>Cooper, Frederick A</td>
</tr>
<tr>
<td>ARTH 3012</td>
<td>19th and 20th Century Art</td>
<td>3</td>
<td>This course introduces students to the art history of major monuments and issues of modern period: sculpture, architecture, painting, and prints. Movements include neo-classicism, romanticism, realism, impressionism, evolution of modernism, symbolism, fauvism, cubism, dadaism, surrealism, abstract expressionism, pop art, conceptualism, and post-modernism. A term paper, based on a close reading and interpretation of a selected painting or sculpture in the MIA Collection will be required. Course Requirements: Mid-term, Final Exam and a Term Paper.</td>
<td>Asher, Catherine B</td>
</tr>
<tr>
<td>ARTH 3142</td>
<td>Art of Egypt</td>
<td>4</td>
<td>This course introduces students to the art history of indigenous peoples from Mexico, Central America, and South America before the arrival of Europeans. We will study their prolific artistic production starting with their earthworks in the deserts of Peru and ending with their stone pyramids and painted codices of Guatemala and Mexico. We will critically</td>
<td>Canepa, Matthew P.</td>
</tr>
<tr>
<td>ARTH 3205</td>
<td>Pre-Columbian Art of the Americas</td>
<td>3</td>
<td>This course introduces students to the art history of ancient cultures which contributed to the development of western civilization; namely, Egyptian, Babylonian, Assyrian, Phoenician, Aegean, Etruscan, Roman, and Early Christian/Byzantine. The lectures will focus on a selection of important works, but will include discussions of appreciation and style as well as the larger social, religious and visual ideas of early cultures. The requirements of the course are geared for students with no previous experience or study in this discipline.</td>
<td>Cooper, Frederick A</td>
</tr>
</tbody>
</table>

**Art History 338 Heller Hall**

<table>
<thead>
<tr>
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<th>Description</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 1001</td>
<td>Introduction to Art History: Prehistoric to Contemporary</td>
<td>3</td>
<td>This course focuses on the art of Islam from the origins of Islam to the present, covering much of the Islamic world including the Middle East, South and Southeast Asia, China, sub-Saharan Africa and the USA. Focus will be on architecture and painting, among other arts. The cultural, political and religious milieu, as well as the role of the patron under which art works were created, will be discussed. The material will be approached geographically and chronologically; throughout the course the features and themes that unify the diverse artistic trends and styles produced throughout the Islamic world will be discussed. All images shown in class will be available for viewing on the course web site.</td>
<td>Cooper, Frederick A</td>
</tr>
<tr>
<td>ARTH 102W</td>
<td>Why Art Matters</td>
<td>4</td>
<td>This course introduces students to the art history of ancient cultures which contributed to the development of western civilization; namely, Egyptian, Babylonian, Assyrian, Phoenician, Aegean, Etruscan, Roman, and Early Christian/Byzantine. The lectures will focus on a selection of important works, but will include discussions of appreciation and style as well as the larger social, religious and visual ideas of early cultures. The requirements of the course are geared for students with no previous experience or study in this discipline.</td>
<td>Canepa, Matthew P.</td>
</tr>
<tr>
<td>ARTH 192W</td>
<td>Introduction to Film Study</td>
<td>4</td>
<td>This course introduces students to the art history of ancient cultures which contributed to the development of western civilization; namely, Egyptian, Babylonian, Assyrian, Phoenician, Aegean, Etruscan, Roman, and Early Christian/Byzantine. The lectures will focus on a selection of important works, but will include discussions of appreciation and style as well as the larger social, religious and visual ideas of early cultures. The requirements of the course are geared for students with no previous experience or study in this discipline.</td>
<td>Cooper, Frederick A</td>
</tr>
<tr>
<td>ARTH 3005</td>
<td>American Art</td>
<td>4</td>
<td>This course introduces students to the art history of ancient cultures which contributed to the development of western civilization; namely, Egyptian, Babylonian, Assyrian, Phoenician, Aegean, Etruscan, Roman, and Early Christian/Byzantine. The lectures will focus on a selection of important works, but will include discussions of appreciation and style as well as the larger social, religious and visual ideas of early cultures. The requirements of the course are geared for students with no previous experience or study in this discipline.</td>
<td>Cooper, Frederick A</td>
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This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
analyze how these cultures produced, shaped, and used art to shape the world around them. This class will equip you with the tools to investigate Pre-Columbian art at more advanced levels.

**ARTH 3309 Renaissance Art in Europe**
A-F only, 3 credit(s); Meets CLE req of Arts/Humanities; Instructor: Gaudio, Michael P
Description: This course focuses on the major artists and monuments of the Renaissance in Europe. Students will explore ways in which the making and viewing of art works was shaped by social and cultural contexts such as Renaissance Humanism, the Protestant Reformation, the Counter-Reformation, and the emergence of a market economy. Students will also explore the relationships between artistic creation and other spheres of life in the Renaissance, including literature, science, and politics. The course teaches basic art-historical skills of analyzing and writing about works of art.

**ARTH 3484 The Art of Picasso and the Modern Movement**
4 credit(s);
Instructor: Weisberg, Gabriel
Description: Works of Picasso in all media. Blue, Rose, Cubist, Classical, and later periods of Picasso's development against innovations in media; collage, utilization of found-objects, printmaking and ceramics. Autobiographical nature of imagery gives methodological basis for exploring frequently personalized themes. A term paper, based on a close reading of Picasso works in a Minneapolis based collection, and employing a clear methodological emphasis derived from the course, will be stressed. Course Requirements: Mid-term, Final Exam and a Term Paper.

**ARTH 3975 Directed Museum Experience**
OPT No Aud, 1-2 credit(s), max credits 2, 1 completion allowed; prereq instr consent;
Instructor: STAFF
Description: The student is responsible for obtaining an internship in an art institution or museum which must be approved by the Director of Undergraduate Studies in Art History. For 2 credits the internship must be for at least 10 hours per week. S/N registration only. Open to majors and non-majors. Speak with the ArtH DUGS for more information.
Style: On-site internship.
Grading: Grade (S-N) recommended by intern supervisor.

**ARTH 3993 Directed Study**
A-F only, 1-4 credit(s), max credits 12, 3 completions allowed; prereq instr consent;
Instructor: Asher, Frederick M
Description: Student may contact the instructor or department for information.

**ARTH 3993 Directed Study**
A-F only, 1-4 credit(s), max credits 12, 3 completions allowed; prereq instr consent;
Instructor: Cooper, Frederick A
Description: Student may contact the instructor or department for information.

**ARTH 3993 Directed Study**
A-F only, 1-4 credit(s), max credits 12, 3 completions allowed; prereq instr consent;
Instructor: McNally, Sheila J
Description: Student may contact the instructor or department for information.

**ARTH 3993 Directed Study**
A-F only, 1-4 credit(s), max credits 12, 3 completions allowed; prereq instr consent;
Instructor: Weisberg, Gabriel
Description: Student may contact the instructor or department for information.

**ARTH 5108 Greek Architecture**
3 credit(s); prereq ArtH/Clas 3008, jr or sr or grad, or instr consent; Credit will not be granted if credit has been received for: CNES 5108;
Instructor: Cooper, Frederick A
Description: Student may contact the instructor or department for information.

**ARTH 5301 Visual Culture of the Atlantic World**
A-F only, 3 credit(s);
Instructor: Gaudio, Michael P
Description: This course explores the visual culture of the Atlantic World from the time of the Columbian encounter through the revolutionary period in North America. Art historical approaches to early modern visual culture have traditionally
been defined by distinct--and distinctly artificial--national and cultural entities (England, France, Spain, the Americas, Africa, etc.). This course, however, will treat the broad geographic region of the Atlantic rim as a fluid space defined by the circulation and exchange of peoples, goods, and knowledges. We will investigate visual representations (including paintings, prints, maps, scientific imagery, decorative arts), collecting practices, and visual performances and spectacle through the key issues that defined this circum-Atlantic context: slavery and the slave trade, contact and exchange with indigenous cultures, international commerce and politics, religious debate and conflict, and the production of scientific knowledge. No pre-requisites. For advanced undergraduates and graduate students.

**Style:** 50% Lecture, 50% Discussion.

**ARTH 5411 Gender and Sexuality in Art Since 1863**
3 credit(s);
Instructor: Blocker, Jane M
**Description:** This course surveys the role gender and sexuality have played in the development of art from Manet's Olympia to the present; and the role that art has played in both reinforcing and challenging dominant theories of gender identity. It thus considers modernism and postmodernism as they reflect historical changes in gender roles, feminism politics, and the construction and deconstruction of masculinity and femininity. It considers such things as transgender performance as avant-garde practice and the body as image, medium, and site of theoretical debate. Students read a wide variety of texts by scholars, critics, and artists addressing different themes related to the course.
**Style:** 50% Lecture, 50% Discussion.
**Grading:** 60% reports/papers, 25% special projects, 15% attendance.

**ARTH 5484 The Art of Picasso and the Modern Movement**
4 credit(s);
Instructor: Weisberg, Gabriel
**Description:** Student may contact the instructor or department for information.

**ARTH 5781 Age of Empire: The Mughals, Safavids, and Ottomans**
3 credit(s);
Instructor: Asher, Catherine B
**Description:** This course will investigate artistic developments including architecture, painting, gardens and luxury arts under the three most powerful, yet distinctive, Islamic empires of the 16th – 19th Centuries: 1) the Ottomans of Turkey; 2) the Safavids of Iran; and 3) the Mughals of India. The role of religion, the state, and it subjects will be considered in the creation of art and architecture. A major goal is to understand the nature of these states regarding their attitudes toward religions practiced in their state, their multiple populations and states craft as well as their artistic production on a comparative basis. Images will be available on Moodle.
**Style:** 70% Lecture, 30% Discussion. The format for this class will differ between graduates and undergraduates.
**Grading:** 75% reports/papers, 15% class participation.
**Exam Format:** essay

**ARTH 5993 Directed Study**
A-F only, 1-4 credit(s), max credits 12, 3 completions allowed; prereq instr consent;
**Instructor:** Sheehy, Colleen J
**Description:** Student may contact the instructor or department for information.

**ARTH 5993 Directed Study**
A-F only, 1-4 credit(s), max credits 12, 3 completions allowed; prereq instr consent;
**Instructor:** Asher, Catherine B
**Description:** Student may contact the instructor or department for information.

**ARTH 5993 Directed Study**
A-F only, 1-4 credit(s), max credits 12, 3 completions allowed; prereq instr consent;
**Instructor:** McCarthy, Steven F
**Description:** Student may contact the instructor or department for information.

**ARTH 5993 Directed Study**
A-F only, 1-4 credit(s), max credits 12, 3 completions allowed; prereq instr consent;
**Instructor:** Ostrow, Steven F
**Description:** Student may contact the instructor or department for information.

**ARTH 5993 Directed Study**
A-F only, 1-4 credit(s), max credits 12, 3 completions allowed; prereq instr consent;
**Instructor:** Silberman, Robert B
**Description:** Student may contact the instructor or department for information.

**ARTH 5993 Directed Study**
A-F only, 1-4 credit(s), max credits 12, 3 completions allowed; prereq instr consent;
**Instructor:** Weisberg, Gabriel
**Description:** Student may contact the instructor or department for information.

**ARTH 5993 Directed Study**
A-F only, 1-4 credit(s), max credits 12, 3 completions allowed; prereq instr consent;
**Instructor:** Weisberg, Gabriel
**Description:** Student may contact the instructor or department for information.
ARTH 5993 Directed Study  
A-F only, 1-4 credit(s), max credits 12, 3 completions allowed; prereq instr consent;  
Instructor: Marshall PhD, Jennifer Jane  
Description: Student may contact the instructor or department for information.

ARTH 8001 Art Historiography: Theory and Methods  
A-F only, 3 credit(s);  
Instructor: Marshall PhD, Jennifer Jane  
Description: Student may contact the instructor or department for information.

ARTH 8500 Seminar: Issues in Pre-Columbian and Latin American Art: Restoring Sight to Justice: Art, Law, Censorship  
3 credit(s), max credits 12, 4 completions allowed;  
Instructor: Afanador-Pujol, Angelica J  
Description: From the art of prisoners to the art about prisoners, justice as a concept in art has helped reveal and conceal inequalities. This seminar looks at the ways cultures in through time and space have conceptualized, constructed, and represented justice. We will explore different conceptions of justice and how it has been visually represented, its social construction, its political uses, and its interactions with race and gender.

ARTH 8970 Directed Studies  
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent;  
Instructor: Asher, Catherine B  
Description: Student may contact the instructor or department for information.

ARTH 8970 Directed Studies  
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent;  
Instructor: Cooper, Frederick A  
Description: Student may contact the instructor or department for information.

ARTH 8970 Directed Studies  
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent;  
Instructor: Poor, Robert John  
Description: Student may contact the instructor or department for information.

ARTH 8970 Directed Studies  
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent;  
Instructor: Marling, Karal Ann Rose  
Description: Student may contact the instructor or department for information.

ARTH 8970 Directed Studies  
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent;  
Instructor: Mc Nally, Sheila J  
Description: Student may contact the instructor or department for information.

ARTH 8970 Directed Studies  
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent;  
Instructor: Weisberg, Gabriel  
Description: Student may contact the instructor or department for information.

ARTH 8970 Directed Studies  
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent;  
Instructor: Asher, Frederick M  
Description: Student may contact the instructor or department for information.

ARTH 8970 Directed Studies  
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent;  
Instructor: Silberman, Robert B  
Description: Student may contact the instructor or department for information.

ARTH 8970 Directed Studies  
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent;  
Instructor: Blocker, Jane M  
Description: Student may contact the instructor or department for information.

ARTH 8970 Directed Studies  
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent;  
Instructor: Ostrow, Steven F  
Description: Student may contact the instructor or department for information.

Arts and Cultural Leadership  
20 Classroom Office Building

ACL 5200 Trends and Impacts in Arts and Cultural Leadership  
A-F only, 3 credit(s); prereq dept consent;  
Instructor: Schock, Bonnie J  
Description: Student may contact the instructor or department for information.

Asian American Studies  
104 Scott Hall

AAS 1101 Imagining Asian America  
3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Social Sciences;  
Instructor: Lee, Josephine D  
Description: According to the 2000 U.S. Census, Asian Americans, including long-time residents and newcomers, are the fastest growing racial/minority population in the United States. Asian immigrants and refugees now make up about half of the people immigrating to the United States. Their histories, cultures, and experiences are crucial to understanding both historical and contemporary formations of American citizenship, identities, and values. This course is an introduction to the field of Asian American Studies, an interdisciplinary field of inquiry that uses histories, films, memoirs, and other texts to study how the history of immigration, exclusion, and naturalization laws has visibly shaped existing Asian American communities and identities, and how "Asian America" is central to a more general understanding of American popular culture and public life.  
Style: 60% Lecture, 40% Discussion.  
Grading: 60% reports/papers, 20% special projects, 10% attendance, 10% class participation.

AAS 1201 Racial Formation and Transformation in the United
Schedule.

Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online University of Minnesota - Course Guide for Twin Cities Campus Fall 2010

ALL 1910W Freshman Seminar: Thinking Gender in Japanese Literature and Theater
3 credit(s); prereq A-F only, 3 credit(s); max credits 6; prereq freshman; Meets CLE req of Writing Intensive;
Instructor: Isaka,Maki
Description: “Cross-gender” performance prevails in Japanese literature and theater. For example, while the all-male kabuki theater is well known for actors playing women's roles, the all-female Takarazuka revue is popular mainly because of its male role actors. In the realm of literature, memoirs flourished due in large part to prolific ladies-in-waiting at royal court, and yet the one who initiated such a literary tradition was a male aristocrat who posed as a woman in the text. This course aims to contemplate gender in this cultural context. Importantly, our ultimate goal of this course lies not merely in basic information of each example above, but in a survey of Japanese culture. We will also gain an applicable working paradigm in which we can further explore the topic of gender. Accordingly, this course has two interlocking aims. First, it provides an understanding of gender performance in the context of Japanese literature and theater. Second, we will be engaged in a theoretical inquiry into “gender.” For example, what does “cross-gender” performance mean? What differences and similarities are to be found in two concepts, “gender” and “gender impersonation”? This course also fulfills the WI requirement. Writing, revising, and class workshops about writing will be an integral part of the class. No previous knowledge of Japanese studies or gender studies is required. Audio-visual materials will be used whenever available and appropriate. Lib Ed req of WI.

ALL 3001 Reading Asian Cultures
A-F only, 3 credit(s);
Instructor: Rouzer, Paul F
Description: Introduction to primary Asian texts in translation, with an emphasis on close reading skills and methodological rigor. Interpretative essays and articles by scholars in the field will also be introduced to some extent. Topic for Fall 2010: Concepts of the “hero” in South Asian, Chinese, and Japanese culture. How did various societies in Asia define the ethos of the “hero” and his relationship to the community? How did versions of the hero change over time, and how was the hero redefined in the context of modern nationalism? What part have traditional gender roles played in defining the hero, and is a “female” hero possible within these traditions? Specific explorations: The Ramayana in India and its re-tellings; the Chinese “knight-errant” and his evolution into the martial artist of popular culture; shifting Japanese constructions of the samurai from medieval war tales to modern literature and film.
Style: 50% Lecture, 50% Discussion.
Grading: 60% reports/papers, 30% quizzes, 10% class participation.

ALL 3265W Writing (in) East Asian Cultures: From Oracle Bones to Tattoos
3 credit(s); prereq [One year or current enrollment] in [Chinese or Japanese or Korean] language or similar exposure to East Asian writing systems; Meets CLE req of Arts/Humanities; meets CLE req of Writing Intensive;
Instructor: Allen,Joseph R
Description: This course is an introduction to the history, physical context, cultural practice and contemporary conditions of writing hanzi/kanji/hanja (Chinese ?characters?) in Chinese, Japanese, and Korean cultures. We will first investigate the nature of the Chinese script in historical and cultural terms, including its earliest manifestations and contemporary forms. We will then review the history of writing in East Asia: the early spread of the Chinese script system throughout the region, its adaptation to local vernaculars, followed by the development of vernacular syllabary (the kana systems for Japan, Hangul for Korea, and zhuininfuhao for China). Our main focus will be on sites and practices where writing of Chinese characters takes on a particularly high cultural value: from oracle bone writing in China, calligraphy in the region, modern printing, and contemporary advertising and global uses, such as in the popular culture of tattooing.

ALL 3433W Traditional Japanese Literature in Translation
3 credit(s); prereq No knowledge of Japanese necessary credit will not be granted if credit received for: Jpn 3162, ALL 3433; Meets CLE req of Literature; meets CLE req of Writing Intensive;
Instructor: Isaka,Maki
Description: This course examines diverse traditions of Japanese premodern literature. We will begin with traditions in the classical age—the court of princes, princesses, poets, and the like. We will also pay attention to worlds that not only constitute the foundation of Japanese literature in one way or another, but also continue furnishing images of Japan today: these include samurai, drama, and the floating world of townspeople. No less importantly, we will also investigate their literary and theoretical continuity, or discontinuity, which we may observe today. Toward this end, we will explore several themes in relation to premodern Japanese literature: aesthetics, philosophy, gender, and so forth. This course is open to anyone with an interest. No previous knowledge of Japanese studies is required. No reading knowledge of Japanese is required; all of the readings will be available in English. Audio-visual materials will be used whenever available and appropriate. Lib Ed req of Ltr [Literature Core]; WI.

The material presented in this document is a representation of the course guide and schedule provided by the University of Minnesota for the Twin Cities Campus Fall 2010. It includes a variety of course descriptions, prerequisites, and grading information. The courses covered range from fresh look at Japanese literature and theater, to Asian American psychology, and gender studies, with topics varying from theater to literature and popular culture.
ALL 3456 Japanese Film
3 credit(s); prereq credit will not be granted if credit received for: JPN 3166; Instructor: Marran, Christine L
Description: This course introduces students to key issues in postwar Japanese cinema, focusing on formal, cultural and ideological dimensions in the films of Ozu, Kurosawa, Mizoguchi, Oshima, and other major filmmakers. We will acquire the critical tools to talk about film while acquainting ourselves with the historical movements within Japanese film history. The texts specifically on Japanese cinema and history will provide the basis for cultural specificity in our analysis. Film grammar references will aid our discussions and analysis of formal and stylistic elements.
Style: 50% Lecture, 25% Film/Video, 25% Discussion.
Grading: 20% mid exam, 40% final exam, 20% special projects, 20% written homework.

ALL 3920 Topics in Asian Culture
2-3 credit(s), max credits 9, 3 completions allowed; Instructor: STAFF
Description: Delicious Movement for Forgetting, Remembering, and Uncovering Delicious Movement is an experiential and experimental course taught by Eiko of Eiko & Koma, dancer/choreographers and interdisciplinary artists. The subject is Eiko & Koma’s ‘living’ installation “NAKED,” commissioned and presented by the Walker Art Center as well Eiko & Koma’s Retrospective Project. The course combines studio learning (movement studies), viewing (at the Walker Art Center) seminars (presentations and discussions), reading and writing. Students will have a rare opportunity learning from artist(s) themselves and from people who are directly involved in the project about the essence of Eiko & Koma’s art making (what constitutes Eiko & Koma’s work). Students will study Eiko & Koma’s history, inspirations, and background; students will also learn Eiko & Koma’s movement vocabulary and engage in intense viewing experiences. Designed to help students develop a deeper and more personal understanding of these artists’ work, this course also offers the opportunity formulate individual and collective reflections on the theme of nakedness as well as artist methodology, art and context, and the way in which these particular artists build and sustain long-term community relationships. The course reading and viewing lists include postwar Japanese literature, visual and performance art works which nurtured Eiko & Koma’s aesthetic. Themes of mourning, violence, survival, and vulnerability will be explored and the class is emphatically open to all who are interested in creative process. *** No previous movement or studio experience is necessary. *** Artist Biography: Born and raised in Japan, Eiko & Koma have also played a major role in the Retrospective Project by publishing the catalogue and commissioning “Naked.” For “Naked” Eiko & Koma present at WAC a hand-made visual environment in which their bodies/movements are seen by the public six, seven days every day throughout the month of November. Eiko & Koma have also taught two courses in the University of Minnesota. They are recipients of 2 Bessies, Guggenheim, MacArthur, and USA Artists fellowships. Eiko & Koma were also honored received with American Dance Festival Scripps Award. www.eikoandkoma.org

ALL 3920 Topics in Asian Culture: Indian Cinema: From Golden Age to Globalization
3 credit(s), max credits 9, 3 completions allowed; Instructor: Shapiro, Gabriel
Description: The history of cinema in India began with the arrival of the Lumiere brothers? cinematographe in Mumbai (called Bombay at the time) in 1896, roughly the same moment that this technology arrived in the United States and the United Kingdom. Almost immediately after the earliest film screenings, Indians began making their own films. Today India is one of the world?s most prolific, variegated, and dynamic film industries. India produces an array of film types as rare as the languages and genres. The best known of these is what is referred to as Bollywood, the big budget song and dance spectacles that are typically a blend of Hindi and Urdu, feature the biggest stars, and drive record sales and radio play throughout the country. Beyond Bollywood, there are several other well known subsets of Indian cinema that demand consideration. This broad survey course will proceed chronologically from several early short films, through various periods that can be more or less marked out as discrete eras of Indian film production. Students do not need any prior knowledge of Indian languages, cultures, or history.
Style: 50% Lecture, 25% Film/Video, 25% Discussion.
Grading: 20% mid exam, 30% final exam, 30% reports/papers, 10% attendance, 10% class participation.

ALL 3920 Topics in Asian Culture: Bio-Japan
3 credit(s), max credits 9, 3 completions allowed; Instructor: Marran, Christine L
Description: Students in this course will study the ways in which ideas of nature and science have been articulated in Japanese literature, cinema, philosophy, and popular culture (including animation and manga). Some questions to pursue are: How have Japanese perceptions of the environment and nature changed over time? Is Japan an “ecological” nation? What are the driving forces behind popular understandings of the environment? To answer these and other questions we will study how philosophers, novelists and filmmakers engage the land, sea, and animal in offering humanist and posthumanist visions of conversational genre (including animation narratives, storytelling in casual conversation, interviews and lectures), and how this expression of embodied experience shapes and is shaped by language. Using actual film and video clips in Japanese conversational interaction, we will investigate how participants use verbal/nonverbal devices to allocate specific structural roles in the participation framework (storyteller, co-teller, addressed and non-addressed recipient), create story structure, and evaluate events. We will investigate the negotiation of information between knowing and unknowing participants (using topicalization, focus, contrast, reference, ellipsis, proximal and distal demonstratives), and the establishment of time and perspective (past/non-past tense alternation). Finally, we will examine how participants negotiate the tellability (newsworthiness) of their stories using evaluative devices (style shift, onomatopoeia, quotation, constructed dialogue, repetition, etc.), and how they use stories to make points, justify opinions, and create alignments that connect with larger social identities. PREREQUISITES: JPN 3022, OR permission of the instructor. MAIN TEXT: Szatrowski, Polly, ed. In press. Storytelling across Japanese conversational genre. Amsterdam: John Benjamins. Coursepack consisting of research papers and readings from the following texts: Maynard, Senko K. 1989. Japanese conversation through structure and interactional management. Norwood, NJ: Ablex. Chafe, Wallace, ed. 1990. The hear stories: Cognitive, cultural, and linguistic aspects of narrative production. Ablex Publishing Corporation. Iwasaki, Shoichi. 1993. Subjectivity in grammar and discourse. Amsterdam: John Benjamins. Karatsu, Masako. 2004. A study of storytelling in Japanese conversation. University of Minnesota: Ph.D. Dissertation. Style: 40% Lecture, 30% Discussion.
Grading: 40% reports/papers, 30% written homework, 30% in-class presentation. Major paper, abstract, presentation: 40%; Written homework and data collection: 30% In-class presentation: 30%
ALL 3920 Topics in Asian Culture: Korean Culture
3 credit(s), max credits 9, 3 completions allowed;
Instructor: Workman, Travis James
Description: Individual reading and study with guidance of a faculty member of topics not covered in regular courses.
Evaluation Standards and Workload: Variable, depending on course of study determined by the student and faculty. Generally students will be evaluated on written materials, exams, and presentations.

ALL 3990 Directed Study
1-4 credit(s), max credits 16, 4 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: Allen, Joseph R
Description: Individual reading and study with guidance of a faculty member of topics not covered in regular courses.
Evaluation Standards and Workload: Variable, depending on course of study determined by the student and faculty. Generally students will be evaluated on written materials, exams, and presentations.

ALL 3990 Directed Study
1-4 credit(s), max credits 16, 4 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: Marran, Christine L
Description: Individual reading and study with guidance of a faculty member of topics not covered in regular courses.
Evaluation Standards and Workload: Variable, depending on course of study determined by the student and faculty. Generally students will be evaluated on written materials, exams, and presentations.

ALL 3990 Directed Study
1-4 credit(s), max credits 16, 4 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: Sawhney, Simona
Description: Individual reading and study with guidance of a faculty member of topics not covered in regular courses.
Evaluation Standards and Workload: Variable, depending on course of study determined by the student and faculty. Generally students will be evaluated on written materials, exams, and presentations.

ALL 3990 Directed Study
1-4 credit(s), max credits 16, 4 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: McGrath, Jason
Description: Individual reading and study with guidance of a faculty member of topics not covered in regular courses.
Evaluation Standards and Workload: Variable, depending on course of study determined by the student and faculty. Generally students will be evaluated on written materials, exams, and presentations.

ALL 3990 Directed Study
1-4 credit(s), max credits 16, 4 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: Rouzer, Paul F
Description: Individual reading and study with guidance of a faculty member of topics not covered in regular courses.
Evaluation Standards and Workload: Variable, depending on course of study determined by the student and faculty. Generally students will be evaluated on written materials, exams, and presentations.

ALL 5920 Topics in Asian Culture: Linguistics of Japanese Storytelling
3 credit(s), max credits 12, 4 completions allowed;
Instructor: Szatrowski, Polly Ellen
Style: 40% Lecture, 30% Discussion.
Grading: 40% reports/papers, 30% written homework, 30% in-class presentation. Major paper, abstract, presentation: 40%; Written homework and data collection: 30% In-class presentation: 30%

ALL 5990 Directed Study
1-4 credit(s), max credits 16, 4 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: Allen, Joseph R
Description: Individual reading and study with guidance of a faculty member of topics not covered in regular courses. Open to advanced students only. Evaluation Standards and Workload: Variable, depending on course of study determined by the student and faculty. Generally students will be evaluated on written materials, exams, and presentations. Graduate students will be asked to do more independent reading and writing, beyond those assigned to undergraduate students.

ALL 5990 Directed Study
1-4 credit(s), max credits 16, 4 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: Isaka, Maki
Description: Individual reading and study with guidance of a faculty member of topics not covered in regular courses. Open to advanced students only. Evaluation Standards and Workload: Variable, depending on course of study determined by the student and faculty. Generally students will be evaluated on written materials, exams, and presentations. Graduate students will be asked to do more independent reading and writing, beyond those assigned to undergraduate students.
AST 1001 Exploring the Universe
4 credit(s); Credit will not be granted if credit has been received for: AST 1011H; Meets CLE req of Environment; meets CLE req of Physical Sciences;
Instructor: Rudnick, Lawrence
Description: This course is a scientific exploration of the human place in the universe. We study the origin and history of the Universe and the formation of the Earth and the solar system. We compare the Earth's properties with those of the other planets and explore how the heavens have influenced human thought and action. This course includes study of the properties of light and matter and the tools astronomers use to measure radiation from celestial sources. The course covers exciting contemporary topics such as black holes, the expansion of the universe and the search for extraterrestrial life. Although largely descriptive, the course will occasionally require the use of junior-high level mathematics. This course is intended for non-science majors; no science background is necessary. IT students should take AST 1011H.
Style: 50% Lecture, 10% Discussion, 40% Laboratory.
Grading: 32% mid exam, 30% final exam, 14% special projects, 24% laboratory evaluation.
Exam Format: Multiple choice, short answer.

AST 1005 Descriptive Astronomy
3 credit(s); prereq non-science major; Credit will not be granted if credit has been received for: AST 1001;
Instructor: Rudnick, Lawrence
Description: This course is a scientific exploration of the human place in the universe. We study the origin and history of the Universe and the formation of the Earth and the solar system. We compare the Earth's properties with those of the other planets and explore how the heavens have influenced human
thought and action. This course includes study of the properties of light and matter and the tools astronomers use to measure radiation from celestial sources. The course also covers exciting contemporary topics such as black holes, the expansion of the universe and the search for extraterrestrial life. Although largely descriptive, the course will occasionally require the use of junior-level high level mathematics. This course is intended for non-science majors; no science background is necessary. IT students should take AST 101H.


AST 101H Exploring the Universe, Honors
4 credit(s); prereq High school trigonometry, [high school physics or chemistry]; Credit will not be granted if credit has been received for AST 1001; Meets CLE req of Environment; meets CLE req of Physical Sciences;
Instructor: Woodward, Paul R
Description: This is the honors version (more mathematical) of AST 1001, which is our introductory course in Astronomy and Astrophysics. This course is a scientific exploration of the human place in the universe. We study the origin and history of the universe and the formation of the Earth and the solar system. We compare how the study of the heavens has influence human thought and action. This course includes study of the properties of light and matter and the tools astronomers use to measure radiation from celestial sources. The course also covers exciting contemporary topics such as black holes, the expansion of the universe and the search for extraterrestrial life. Although largely descriptive, the course will occasionally require the use of junior high level mathematics. Lectures are three days per week; a fourth day each week of two hours is spent in small groups working on a lab project.
Style: 50% Lecture, 40% Laboratory. 10% closed circuit TV
Grading: 32% mid exam, 30% final exam, 14% special projects, 24% laboratory evaluation.
Exam Format: Multiple choice and a combination of essay and/or short answer.

AST 2001 Introduction to Astrophysics
4 credit(s); prereq [One yr calculus, PHYS 1302] or instr consent;
Instructor: Gehrz, Robert Douglas
Description: This is an introductory course for astronomy and astrophysics majors. You will be introduced to a broad range of topics in modern astrophysics, with an emphasis on how we measure astrophysical quantities and how we learn what these observations tell us about the physics of the universe. By the end of this class you will have a much greater facility with elementary theoretical calculations and making the kind of order of magnitude estimates that often guide work of scientists and engineers. The ultimate objective of the course is to give you the basic tools that you will need to read the current literature on astrophysics with a basic level of understanding.
Style: 50% Lecture, 20% Film/Video, 15% Discussion, 15% Demonstration.
Grading: 40% mid exam, 30% final exam, 30% problem solving.

AST 2900 Directed Studies
1-5 credit(s), max credits 5, 1 completion allowed; prereq 1 yr calculus, PHYS 1302, instr consent;
Instructor: STAFF
Description: Independent, directed study in observational and theoretical astrophysics. Arrange with a faculty member.
Style: 20% mid exam, 25% final exam, 25% in-class presentation, 10% class participation, 25% problem solving.
Exam Format: Problems, some short answer questions.

AST 3001 Astrophysics I
A-F only, 4 credit(s); prereq 2001, Phys 2601;
Instructor: Davidson, Kris
Description: Although it specifically concerns stars, this course covers material that is necessary for anyone who wishes to approach modern astrophysics at a semi-professional level - including extragalactic and cosmological problems. We explore the basic physics of stars, ranging from elementary concepts to phenomena that even the experts cannot yet explain. We also summarize real-life spectroscopy and photometry which show which parts of theory work and which ones don't.
Style: 95% Lecture, 5% Discussion.
Grading: 16% mid exam, 32% final exam, 45% written homework, 7% class participation.
Exam Format: Almost entirely short problems - similar to the homework but shorter. The final may also include one or two ultra-short-essay questions.

AST 4299H Senior Honors Astrophysics Research Seminar
1 credit(s), max credits 2, 1 completion allowed; prereq upper div honors student in IT or CLA, inst consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

AST 4900 Directed Studies
1-5 credit(s), max credits 5, 1 completion allowed; prereq instr consent;
Instructor: STAFF
Description: Independent, directed study in observational and theoretical astrophysics. Arrange with a faculty member.
Grading: 40% mid exam, 30% final exam, 30% in-class presentation, 10% class participation, 25% problem solving.
Exam Format: Problems, some short answer questions.

AST 4994W Directed Research
3-5 credit(s), max credits 5, 1 completion allowed; prereq instr consent; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Independent, directed research in observational and theoretical astrophysics. Senior Thesis for undergraduate astrophysics majors. Arranged with faculty member.
Grading: 20% mid exam, 25% final exam, 25% in-class presentation, 10% class participation, 25% problem solving.
Exam Format: Problems, some short answer questions.

AST 5022 Relativity, Cosmology, and the Universe
4 credit(s); prereq [2001, Phys 2601] or instr consent; Credit will not be granted if credit has been received for: PHYS 5022;
Instructor: Williams, Liliya L R
Description: In this course, we will explore the evolution of the Universe from the beginning to the present day, and will cover the standard theory and observations as well as the latest developments in cosmology. Specific topics include: the global geometry and dynamics, inflation, baryogenesis, big bang nucleosynthesis, cosmic microwave background radiation, gravitational instability and structure formation. The course is intended for graduates and upper-level astronomy and physics undergraduates.
Style: 90% Lecture, 10% Discussion.
Grading: 20% mid exam, 25% final exam, 25% in-class presentation, 10% class participation, 25% problem solving.
Exam Format: Problems, some short answer questions.

AST 8011 High Energy Astrophysics
4 credit(s); prereq instr consent;
Instructor: Jones, Thomas Walter
Description: This course explores the nature of some of the most energetic phenomena in the universe, such as supernova, gamma ray bursts, quasars and accreting compact binary star systems. All of these phenomena come from very compact systems of high gravitational potential. Many of them also produce very high energy charged particles (cosmic rays) and energetic photons. Consequently, the first part of the course is a lecture-based overview of the essential physics of compact astrophysical objects, (primitive) general relativity, and particle acceleration. The remainder of the course is a seminar-based exploration of selected topics in the current, working literature of high energy astrophysics. Students are expected to lead seminar discussions. The course assumes a senior level physics background and an interest in astrophysics, but not necessarily a sophisticated knowledge of astronomy.
Style: 33% Lecture, 67% Discussion.
Grading: 25% mid exam, 25% in-class presentation, 25% class participation, 25% problem solving.
AST 8200 Astrophysics Seminar
1-3 credit(s), max credits 3, 1 completion allowed; prereq instr consent;
Instructor: Jones, Thomas Walter
Description: Contact the instructor for more information.
BIOC 1010 Human Health and Disease
3 credit(s); Instructor: Siliciano, Paul G
Description: BioC 1010 provides an introduction to the molecular basis of common human diseases. Beginning with a description of the human genome, the course introduces the fundamental concepts of cellular and molecular biology, biochemical reactions, and the biochemical underpinnings of health and disease. Topics to be presented include Inherited Diseases (cystic fibrosis, hemophilia, sickle cell anemia, muscular dystrophy), Metabolic Diseases (diabetes, cardiovascular disease, hypertension, asthma, alcoholism), and Aging (osteoporosis, menopause, Alzheimer’s and other neurodegenerative diseases). Also included are the most common methods to diagnose, treat and prevent disease, including discussion of gene therapy, regenerative medicine (stem cells), and traditional drug-based interventions. Several class periods will be devoted to discussions of case studies (patients with particular diseases). We will also discuss social impact of individual diseases. The goal of the course is to familiarize students with the molecular basis for different types of diseases and treatments. Student Learning Outcomes: Following successful completion of this course, each student should be capable of scholarly discussions of the following topics: the general principles of the biochemistry and the function of the various classes of biomolecules, chemical processes that occur in the human body, the molecular basis of diseases and their treatments, examples of the impact of biochemistry on today’s society effectively communicate biochemical information in oral and written form. In addition, students should develop a sophisticated, portable biochemistry knowledge that they can use long after to course ends to: explain to their grandparents why their doctor recommends low dose aspirin explain to their parents how their cholesterol medication works evaluate information on a new artificial sweetener understand a new therapy for cystic fibrosis excel in upper level courses Student Expectations: As a student in this course, you are expected to take an active role in your learning. You are expected to attend every class, and to arrive on time and not leave early. You should be prepared for each lecture by reading the assigned material. You should take good lecture notes and use them to make sure you understand all of the concepts covered in class. You should ask questions in lecture to help clarify concepts. You should participate actively in the discussion sessions. You should adhere to the University of Minnesota Student Conduct Code found at http://www1.umn.edu/regents/policies/academic/Student_Conduct_Code.html.
Grading: 25% mid exam, 25% final exam, 25% reports/papers, 25% additional semester exams.

BIOC 2321 Principles of Chemistry and Biochemistry
A-F only, 3 credit(s); Instructor: Prat-Resina, Xavier
Description: Student may contact the instructor or department for information.

BIOC 1010 Human Health and Disease
A-F only, 1 credit(s); Instructor: Schottel, Janet L
Description: Survey of organic chemistry/biochemistry outlining structure/metabolism of biomolecules, metabolic regulation, and principles of molecular biology.
Style: 100% Lecture.
Grading: 100% reports/papers.

BIOC 2321 Principles of Chemistry and Biochemistry
A-F only, 3 credit(s); Instructor: Laporte, David C
Description: BioC 2321 is a one-semester survey of the fundamentals of biochemistry and is part of the core curriculum required for a Biology major in the College of Biological Sciences. The objective of this course is to provide a foundation for understanding the chemistry of biological systems, i.e., to prepare the student to comprehend the composition of living cells and their physiological processes at the molecular level. Lectures consider the structure and function of proteins, nucleic acids, lipids, and carbohydrates; principles of acid-base equilibria, enzyme catalysis and bioenergetics; fundamental metabolic pathways, and the chemical nature of genetic information storage and expression. The prerequisite reflects the strong emphasis on facility with organic chemistry. This course requires regular study effort on the part of the student. Students who plan to major in biochemistry should enroll in the alternate two-semester series, BioC 4331 and BioC 4332. Text: “Essential Biochemistry” by Pratt & Cornely
Style: 100% Lecture.
Grading: 75% mid exam, 25% final exam.
Exam Format: Short answer, write structures, multiple choice, solve problems, short essays.

BIOC 2021 Biochemistry for the Agricultural and Health Sciences
3 credit(s); Instructor: Schottel, Janet L
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit “Class URL” for policy, fee, and financial aid information. This course is a one-semester survey of the fundamentals of biochemistry and is part of the core curriculum required for a Biology major in the College of Biological Sciences. The objective of this course is to provide a foundation for understanding the chemistry of biological systems, i.e., to prepare the student to comprehend the composition of living cells and their physiological processes at the molecular level. Lectures consider the structure and function of proteins, nucleic acids, lipids, and carbohydrates; principles of acid-base equilibria, enzyme catalysis and bioenergetics; fundamental metabolic pathways, and the chemical nature of genetic information storage and expression. The prerequisite reflects the strong emphasis on facility with organic chemistry. This course requires regular study effort on the part of the student. Students who plan to major in biochemistry should enroll in the alternate two-semester series, BioC 4331 and BioC 4332. Text: “Essential Biochemistry” by Pratt & Cornely
Style: 100% Web Based.
Grading: 75% mid exam, 25% final exam.
Exam Format: Short answer, write structures, multiple choice, solve problems, short essays.

BIOC 3021 Biochemistry
3 credit(s); Instructor: Laporte, David C
Description: BioC 3021 Biochemistry is a one-semester survey of the fundamentals of biochemistry and is part of the core curriculum required for a Biology major in the College of Biological Sciences. The objective of this course is to provide a foundation for understanding the chemistry of biological systems, i.e., to prepare the student to comprehend the composition of living cells and their physiological processes at the molecular level. Lectures consider the structure and function of proteins, nucleic acids, lipids, and carbohydrates; principles of acid-base equilibria, enzyme catalysis and bioenergetics; fundamental metabolic pathways, and the chemical nature of genetic information storage and expression. The prerequisite reflects the strong emphasis on facility with organic chemistry. This course requires regular study effort on the part of the student. Students who plan to major in biochemistry should enroll in the alternate two-semester series, BioC 4331 and BioC 4332. Text: “Essential Biochemistry” by Pratt & Cornely
Style: 100% Lecture.
Grading: 75% mid exam, 25% final exam.
Exam Format: Short answer, write structures, multiple choice, solve problems, short essays.

BIOC 2321 Principles of Chemistry and Biochemistry
A-F only, 3 credit(s); Instructor: Prat-Resina, Xavier
Description: Student may contact the instructor or department for information.
for understanding the chemistry of biological systems, i.e., to prepare the student to comprehend the composition of living cells and their physiological processes at the molecular level. Lectures consider the structure and function of proteins, nucleic acids, lipids, and carbohydrates; principles of acid-base equilibria, enzyme catalysis and bioenergetics; fundamental metabolic pathways, and the chemical nature of genetic information storage and expression. The prerequisite reflects the strong emphasis on facility with organic chemistry. This course requires regular study effort on the part of the student. Students who plan to major in biochemistry should enroll in the alternate two-semester series, BioC 4331 and BioC 4332. Text: "Essential Biochemistry" by Pratt & Cornely

**Style:** 100% Lecture.

**Grading:** 75% mid exam, 25% final exam.

**Exam Format:** Short answer, write structures, multiple choice, solve problems, short essays.

**BIOC 3960 Research Topics in Biochemistry**

*S*-only, 1 credit(s); max credits 2; prereq 3021 or concurrent enrollment in 3021 or 4331 concurrent enrollment in 4331 or instructor consent;

**Instructor:** Laporte, David C

**Description:** The goal of Research Topics in Biochemistry is to expose students to a wide variety of cutting-edge research projects. The course will begin with a two-lecture introduction covering how to read scientific papers and the basic concepts of experimental design and analysis. Faculty from the BMBB Department will then give a series of presentations on cutting-edge research. Each faculty member will give two presentations. The first will be a broad overview of a research area and the second will focus on a specific paper, dissecting all or part of it in detail.

**Style:** 50% Lecture, 25% Discussion, 25% Small Group Activities.

**Grading:** 50% written homework, 50% attendance.

**Exam Format:** No Exam.

**BIOC 4025 Laboratory in Biochemistry**

2 credit(s); prereq 3021 or 4331 or equiv;

**Instructor:** Lange, Alex John

**Description:** Theory and practice of modern biochemical techniques including buffers and pH, protein (lactate dehydrogenase) purification, protein electrophoresis, enzyme characterization using kinetics and immunoochemical methods, recombinant DNA techniques.

**Style:** 40% Lecture, 60% Laboratory.

**Grading:** 33% mid exam, 34% final exam, 33% quizzes.

**Exam Format:** short answer and problems.

**BIOC 4331 Biochemistry I: Structure, Catalysis, and Metabolism in Biological Systems**

4 credit(s); prereq [[BIOL 1002 or BIOL 1009 or BIOL 2003 or equiv], [CHEM 2302 or equiv]] or instr consent;

**Instructor:** Murphy, Sharon Elizabeth

**Description:** Biochemistry I: structure, catalysis, metabolism in biological systems - The first 12 lectures review basic chemical concepts and then discuss primary structure (amino acids and sequence), secondary structure (helices, sheet turns), tertiary structure (folding, three dimensional structure) and quaternary structure (subunits and their interactions) of proteins. The next 14 lectures deal with enzyme kinetics and mechanisms and binding interactions. Protein purification and analysis are also discussed. The next 10 lectures discuss carbohydrates, lipid and membrane structures, transport processes. The final 16 lectures discuss metabolic pathways including, glycolysis, glycogen synthesis, the citric acid cycle, oxidative phosphorylation, amino acid and nitrogen metabolism, and lipid synthesis and metabolism. Thermodynamic considerations are emphasized for all pathways. The course covers about 50% of the material in the textbook, "Lehninger Principles of Biochemistry" fifth edition by Nelson and Cox. Most students in the class are expected to be Biochemistry majors. Web site at WebCT.

**Style:** 75% Lecture, 25% Discussion.

**Grading:** 30% mid exam, 30% final exam, 30% quizzes, 10% problem solving.

**Exam Format:** Combination of multiple choice, short answer and problem solving.

**BIOC 4332 Biochemistry II: Molecular Mechanisms of Signal Transduction and Gene Expression**

4 credit(s); prereq 4331 or instr consent;

**Instructor:** Towle, Howard

**Description:** BioC 4332 covers fundamental molecular biology and signal transduction. The course begins with the molecules and processes by which cells store, replicate, repair and express genetic information in the form of DNA, RNA and proteins. The latter part of the course describes regulatory processes that involve control of gene expression and mechanisms of signal transduction. The emphasis in the course is on the biochemical basis of gene function and biochemical regulatory processes. This course is designed for upper division undergraduates in the biological sciences, as well as beginning graduate students in other biological programs. Textbook: Molecular Biology of the Cell by Albert's et al., Garland Science, Fourth Edition (2002)

**Style:** 90% Lecture, 10% Discussion.

**Grading:** 80% mid exam, 20% final exam.

**Exam Format:** Exams will have both short answer (multiple choice, fill-in-the-blank) questions (approx 30-40%) and longer answer formats requiring you to explain and diagram concepts.

**BIOC 4521 Introduction to Physical Biochemistry**

3 credit(s); prereq CHEM 1022, MATH 1272, PHYS 1202; 4331 recommended;

**Instructor:** Mayo, Kevin Henry

**Description:** The objective of this course is to introduce and develop the concepts of physical chemistry that are most important for biochemistry. Desired outcomes are for students to develop a basic understanding of how thermodynamics, kinetics, spectroscopy, and solution dynamics can be applied to biochemical problems, and to provide a background for those students who wish to pursue further study in physical biochemistry.

**Style:** 100% Lecture.

**Grading:** There are four exams, each worth 20%. In addition, 20% of the grade is determined by homeworks and class participation, including attendance.

**Exam Format:** problem solving.

**BIOC 4793W Directed Studies: Writing Intensive**

S-N only, 1-7 credit(s), max credits 7, 7 completions allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;

**Instructor:** STAFF

**Description:** Individual study on selected topics of problems. Emphasizes readings, use of scientific literature. Writing Intensive.

**BIOC 4794W Directed Research: Writing Intensive**

S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;

**Instructor:** STAFF

**Description:** Laboratory or field investigation of selected areas of research. Writing Intensive.

**BIOC 4950 Computer Simulation and Data Analysis in Biochemistry**

A-F only, 3 credit(s); prereq 4331, 4332, MATH 1272;

**Instructor:** Bloomfield, Victor A

**Description:** This course -- taught entirely on-line -- provides an introduction to two important aspects of modern biochemistry, molecular biology, and biophysics: computer simulation and data analysis. The availability of very capable but inexpensive personal computers and software makes it possible to do such work at a much higher level, but in a much easier way, than ever before. In this course you will learn to use readily available computer tools to formulate quantitative models and analyze experiments in a way that measures up to the standards of biology in the 21st century. In particular, you will learn how to use the free, open source software program R in a variety of biological applications. The course is attended for advanced
undergraduates and beginning graduate students, who have had basic instruction in biochemistry and calculus-level mathematics. Specific topics to be covered include R as a tool for numerical, graphical, and programming work; equilibrium and kinetics of biochemical reactions; regulation of metabolic and transcriptional networks; probability and sequence analysis; and analysis of proteomic and microarray data. Since this is a completely online course, efforts will be made to maintain an active class listserv using Moodle, so that students and instructor can discuss questions and issues related to the course. Prof. Bloomfield’s departmental web site is at http://cbs.umn.edu/BMBB/faculty/Bloomfield.V.A.shtml

Style: 100% Web Based. There will be a listserv for discussion of course-related questions and issues.

Grading: 30% mid exam, 30% final exam, 40% problem solving.

Exam Format: Exams and problem sets to be submitted online.

BIOC 4993 Directed Studies
S-N only, 1-7 credit(s), max credits 7, 7 completions allowed; prereq instr consent , dept consent ; Instructor: STAFF

Description: Individual study on selected topics or problems with emphasis on selected readings and use of scientific literature.

Exam Format: No exam

BIOC 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent , dept consent ; Instructor: STAFF

Description: Laboratory or field investigation of selected areas of research.

BIOC 5361 Microbial Genomics and Bioinformatics
3 credit(s); prereq College-level courses in [organic chemistry, biochemistry, microbiology]; Instructor: Wackett, Lawrence Philip

Description: This course is an introduction to genomics with an emphasis on developments in microbial genomics. The topics to be covered are sequencing methodologies , sequence analysis, genomics databases, genome mapping, prokaryotic horizontal gene transfer, genomics in biotechnology, and intellectual property issues in genomics.

BIOC 5527 Introduction to Modern Structural Biology
4 credit(s); prereq [intro biochemistry, intro physics] or physical chemistry or instr consent; Instructor: Aihara, Hideki

Description: Student may contact the instructor or department for information.

BIOC 5531 Macromolecular Crystallography I: Fundamentals and Techniques
S-N only, 1 credit(s); prereq [[One organic chemistry or biochemistry course], [two calculus or college physics courses]] or instr approval; Instructor: Ohlendorf, Douglas Henry

Description: This discussion/seminar course is the first of a two-semester sequence on the topic of Macromolecular Crystallography, the technique by which the complete three-dimensional structure of molecules can be determined. Both courses can only be taken S/N, with grading based primarily upon participation. Where appropriate, classes go into the laboratory to examine the equipment and to observe experiments in progress. The main text for these courses is "X-Ray Structure Determination: A Practical Guide" by G.H. Stout and L.H. Jensen. Minimum prerequisite is one year of chemistry or biology and mathematics through vector algebra and calculus.

Style: 60% Lecture, 40% Discussion. Homework and working examples on biochemistry.

Grading: 100% laboratory evaluation.

Exam Format: No exam

BIOC 6011 Biochemistry for Dental Students
A-F only, 4 credit(s); prereq Dental student; Instructor: Bielinsky, Anja K

Description: COURSE OBJECTIVES To understand the molecular components of biochemistry Students should understand the building blocks (amino acids, lipids, carbohydrates, and nucleotides) and their assembly into proteins, membranes, RNA and DNA. The shape of a protein determines its function, and variables altering protein structure should be remembered and understood. To understand energy concepts in biochemistry Energy in biochemistry can exist as a pH gradient, an electrochemical gradient, a reduced organic molecule or a molecule with high group transfer potential. Students should recognize how these different types of energy can be formed, used and interconverted. To understand catalysis in biochemistry Catalysis makes reactions occur more quickly, but does not change whether they are favorable or not. Catalysis involves enzymes and often cofactor, which are usually derived from vitamins. Catalysis is regulated using several strategies. To understand how energy is generated in biochemistry Students should understand how biochemistry can use glucose to generate energy both with and without oxygen. Students should recognize that anaerobic fermentation of glucose to lactic acid is the source of acid that causes tooth decay. Students should know the pathways of glycolysis, citric acid cycle and oxidative phosphorylation. To understand how energy can be stored in biochemistry Students should understand how energy can be stored as sugars or fats. Students should know the pathways of gluconeogenesis, fatty acid oxidation and synthesis. To understand basic concepts of molecular biology Students should know the structure and composition of DNA and RNA. They should be familiar with DNA metabolism (replication, repair, recombination), the genetic code, basic concepts of gene expression and translational control. Students should also understand how defects in DNA metabolism contribute to cancer. To understand the modern ramifications of molecular biology and recombinant DNA technology Students should apply to human health and dentistry in particular Students should be familiar with basic cloning techniques and new technologies, such as genetic profiling that will likely be part of daily practice in the foreseeable future. They will also be exposed to the basic principles of stem cell technology. To understand basic concepts of signal transduction Students should understand how external stimuli are translated into molecular action. Students will be exposed to examples that are relevant to human health and their profession (e.g., signal transduction in B- and T-cell activation).

Style: 80% Lecture, 15% Discussion, 5% Guest Speakers.

BIOC 6021 Biochemistry
3 credit(s); prereq general biology, organic chemistry, instr consent ; intended for MBS students; Credit will not be granted if credit has been received for: BIOC 3021; Instructor: Laporte, David C

Description: This course is a one-semester survey of the fundamentals of biochemistry and is part of the core curriculum required for a Biology major in the College of Biological Sciences. The objective of this course is to provide a foundation for understanding the chemistry of biological systems, i.e., to prepare the student to comprehend the composition of living cells and their physiological processes at the molecular level. Lectures consider the structure and function of proteins, nucleic acids, lipids, and carbohydrates; principles of acid-base equilibria, enzyme catalysis and bioenergetics; fundamental metabolic pathways, and the chemical nature of genetic information storage and expression. The prerequisite reflects the strong emphasis on facility with organic chemistry. This course requires regular study effort on the part of the student. Students who plan to major in biochemistry should enroll in the alternate two-semester series, BioC 4331 and BioC 4332. Text: “Principles of Biochemistry with a Human Focus”, Garrett and Grisham, Harcourt Court Publishers, 2001.

Style: 100% Lecture.

Grading: 75% mid exam, 25% final exam.

Exam Format: Short answer, write structures, multiple choice, solve problems, short essays

BIOC 6021 Biochemistry
3 credit(s); prereq general biology, organic chemistry, instr consent ; intended for MBS students; Credit will not be granted if credit has been received for: BIOC 3021;
Instructor: Roon, Robert J
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class UPI" for ODL policy, fee, and financial aid information. This course is a one-semester survey of the fundamentals of biochemistry and is part of the core curriculum required for a Biology major in the College of Biological Sciences. The objective of this course is to provide a foundation for understanding the chemistry of biological systems, i.e., to prepare the student to comprehend the composition of living cells and their physiological processes at the molecular level. Lectures consider the structure and function of proteins, nucleic acids, lipids, and carbohydrates; principles of acid-base equilibria, enzyme catalysis and bioenergetics; fundamental metabolic pathways, and the chemical nature of genetic information storage and expression. The prerequisite reflects the strong emphasis on facility with organic chemistry. This course requires regular study effort on the part of the student. Students who plan to major in biochemistry should enroll in the alternate two-semester series, BioC 4331 and BioC 4332. Text: "Principles of Biochemistry with a Human Focus", Garrett and Grisham, Harcourt College Publishers, 2001.
Style: 100% Web Based.
Grading: 75% mid exam, 25% final exam.
Exam Format: Short answer, write structures, multiple choice, solve problems, short essays

BIOC 6021 Biochemistry
3 credit(s); prereq gen. biology, organic chemistry, instr consent; intended for MBS students; Credit will not be granted if credit has been received for: BIOC 3021
Instructor: Schottel, Janet L
Description: This course is a one-semester survey of the fundamentals of biochemistry and is part of the core curriculum required for a Biology major in the College of Biological Sciences. The objective of this course is to provide a foundation for understanding the chemistry of biological systems, i.e., to prepare the student to comprehend the composition of living cells and their physiological processes at the molecular level. Lectures consider the structure and function of proteins, nucleic acids, lipids, and carbohydrates; principles of acid-base equilibria, enzyme catalysis and bioenergetics; fundamental metabolic pathways, and the chemical nature of genetic information storage and expression. The prerequisite reflects the strong emphasis on facility with organic chemistry. This course requires regular study effort on the part of the student. Students who plan to major in biochemistry should enroll in the alternate two-semester series, BioC 4331 and BioC 4332. Text: "Principles of Biochemistry with a Human Focus", Garrett and Grisham, Harcourt College Publishers, 2001.
Style: 100% Lecture.
Grading: 75% mid exam, 25% final exam.
Exam Format: Short answer, write structures, multiple choice, solve problems, short essays

BIOC 8001 Biochemistry: Structure, Catalysis, and Metabolism
3 credit(s); prereq BMBB or MCDB&B grad student or instr consent;
Instructor: Ohlendorf, Douglas Henry
Description: BioC 8001 is one of three core classes for first year students of the MCSB umbrella graduate program. The mission assignment for these courses is summarized in three abbreviated points: 1) Courses will be designed to provide essential background? particularly (for) those who are not majoring in the area of the course. 2) The Courses will be taught at the level of a first year graduate course (not an upper division undergraduate course). 3) Courses will consist primarily of lectures based on graduate level textbooks?(and) will not be primarily literature-based? (Material can be) supplemented with literature sources. Within these guidelines, BioC 8001 was assigned to cover enzyme kinetics, structure, catalysis, metabolism and bioenergetics. The point of reference used to define a graduate level knowledge is the textbook by Voet and Voet, Edition 3. A few lectures on important related topics has been added to enhance understanding of some cutting edge issues in these areas. The first 14 class periods are given by Dr. Nelsestuen and cover biocatalysis and metabolic inter-conversions in biology with considerable discussion of thermodynamics in metabolism. The next 20 class periods are given by Dr. Ohlendorf and focus on structure and interactions of biological macromolecules as well as enzyme kinetics. The last 8 class periods and final exam are by Dr. Nelsestuen and deal with a mixture of topics including bioenergetics of metabolism, metabolic regulation by hormonal action and the effect of cellular crowding and cell structures on specific pathways and regulation events.

BIOC 8002 Molecular Biology and Regulation of Biological Processes
3 credit(s); prereq [BMBB or MCB/B] grad student or instr consent;
Instructor: Conklin, Kathleen F
Description: Student may contact the instructor or department for information.

BIOC 8084 Research and Literature Reports
S-N only, 1 credit(s), max credits 5, 5 completions allowed;
prereq Grad BMBB major or instr consent;
Instructor: Hendrickson, Eric A
Description: Student may contact DGS for information. This "course" is actually participation in the graduate student seminar series. Enrolled students are expected to attend the Tuesday 11:20>12:20 graduate student seminars.

BIOC 8184 Graduate Seminar
S-N only, 1 credit(s), max credits 5, 5 completions allowed;
prereq grad BMBB major or DGS consent;
Instructor: Lipscomb, John D
Description: Student may contact DGS for information

BIOC 8213 Selected Topics in Molecular Biology
4 credit(s); prereq 8002 or instr consent; Credit will not be granted if credit has been received for: GCD 8213;
Instructor: Hendrickson, Eric A
Description: This course is officially called topics in Molecular Biology. This is deceptive, however. In fact, this is a writing course. This course is designed for 1st year graduate students. Extensive writing assignments will be assigned to help the student learn how to write research articles, grant applications and preliminary written proposals. Learning anything about topics in Molecular Biology is considered a distant second in terms of importance.

Bioethics, Center for N-504 Boynton Health Service

BTHX 5000 Topics in Bioethics: Investigative Journalism and Bioethics
3 credit(s), max credits 6; prereq Grad student or instr consent;
Instructor: Elliott Jr, Bruce Carleton
Description: This seminar will explore the links between bioethics and journalism, examining classic and contemporary works of investigative health journalism, works of literary non-fiction related to medicine, memoirs by doctors and medical students, and investigative work by bioethicists and ethnographers. It will also examine citizen muckraking, non-profit
investigative journalism, the public relations industry, the decline of print journalism and the rise of digital media, and how these developments are shaping the relationship between bioethicists and the press.

BTHX 5010 Bioethics Proseminar
A-F only, 2 credit(s); prereq Bioethics grad student or grad minor;
Instructor: DeBruin PhD, Debra Ann
Description: An introduction to topics in bioethics, with enrollment limited to Bioethics graduate students, including graduate minors. Course objectives: The Proseminar serves to: (1) familiarize Bioethics graduate students with the wide range of topics that they may wish to pursue in their scholarship and eventual careers; (2) showcase faculty affiliated with the program in order to acquaint students with their research and assist students in locating potential mentors and advisors; and (3) give Bioethics graduate students a class cohort, to foster community among them.

BTHX 5100 Introduction to Clinical Ethics
3 credit(s); prereq Jr or sr or grad student or instr consent;
Instructor: Marshall, Mary Faith
Description: Clinical ethics concerns the identification, analysis, and resolution of ethical problems that arise in planning for the care of patients. This course deals with the ethical problems that occur frequently in the clinical setting. The course emphasizes the ethical responsibilities of multidisciplinary health care professionals in planning for the care of their patients, and the skills and knowledge needed by ethics consultants in assisting those professionals to resolve ethical problems. The course is practical, teaching knowledge and skills such as obtaining informed consent, assessing decisional capacity, forgoing life-sustaining treatment, and dealing with refusals of treatment by patients and health care professionals.

BTHX 5300 Foundations of Bioethics
3 credit(s); prereq Grad student or instr consent;
Instructor: Liaschenko, Joan
Description: Student may contact the instructor or department for information.

BTHX 5610 Bioethics Research and Publication Seminar
1 credit(s); prereq Grad student or instr consent; bioethics grad majors must register A-F;
Instructor: Miles MD, Steven Haverstock
Description: This seminar is tailored to students wishing to incorporate work in bioethics into their career plans. It provides an overview of research methods, and discusses career publication strategies, authorship issues, ethics in publication, and peer review.

BTHX 5900 Independent Study in Bioethics
1-4 credit(s), max credits 8; prereq instr consent;
Instructor: Miles MD, Steven Haverstock
Description: Student may contact the instructor or department for information.

BTHX 5900 Independent Study in Bioethics
1-4 credit(s), max credits 8; prereq instr consent;
Instructor: Bartels, Dianne Mary
Description: Student may contact the instructor or department for information.

BTHX 5900 Independent Study in Bioethics
1-4 credit(s), max credits 8; prereq instr consent;
Instructor: Song, John Young
Description: Student may contact the instructor or department for information.

BTHX 5900 Independent Study in Bioethics
1-4 credit(s), max credits 8; prereq instr consent;
Instructor: Elliott Jr, Bruce Carleton
Description: Student may contact the instructor or department for information.

BTHX 5900 Independent Study in Bioethics
1-4 credit(s), max credits 8; prereq instr consent;
Instructor: Kahn, Jeffrey Paul
Description: There is a history of policy making in the US for the oversight of controversial science, whether it is basic laboratory research (e.g., recombinant DNA, human embryonic stem cell research), research involving humans (e.g., gene transfer research) or clinical medicine (e.g., organ donation and transplantation). This course will examine some of that history,
and the ethics, law and policy that have been applied in crafting policy in these areas. The goal is to assess what has been learned over the history and how those lessons can be applied in new and evolving areas of controversial science.

**BTHX 8000 Advanced Topics in Bioethics: Nanotechnology, Law & Society**

3 credit(s), max credits 8; prereq 4xxx or 5xxx ethics course or instr consent;
Instructor: Fatehi, Leili
Description: This course will take an interdisciplinary approach to examining the legal, public policy, social, economic, and ethical implications of nanotechnology. The course will explore the need to develop public policies for nanotechnology from the perspective of different stakeholders (federal agencies, the public, industry, the environment, international organizations, etc.) and examine and contrast different statutory objectives and regulatory strategies. The course will also draw on a diverse set of guest speakers and readings and will expose students to different types of policy problems. Students will explore different research methodologies used in the various disciplines that study ethical, legal, and social issues. Because nanotechnology is also a uniquely interdisciplinary field, requiring collaboration between scientists and engineers in virtually all the science disciplines, as well as social scientists, ethicists, lawyers, and policy analysts, enrollment by students with a broad range of interests is encouraged.

**BTHX 8500 Practicum in Bioethics**

OPT No Aud, 1-3 credit(s), max credits 12, 4 completions allowed; prereq Bioethics grad [major or minor] or instr consent;
Instructor: Miles MD, Steven Haverstock
Description: Student may contact the instructor or department for information.

**BTHX 8900 Advanced Independent Study in Bioethics**

1-4 credit(s), max credits 8; prereq instr consent;
Instructor: Song, John Young
Description: Student may contact the instructor or department for information.

**BTHX 8900 Advanced Independent Study in Bioethics**

1-4 credit(s), max credits 8; prereq instr consent;
Instructor: Liaschenko, Joan
Description: Students propose area for advanced individual study with faculty guidance. Students write proposal, which includes outcome objectives and work plan. Faculty member directs student's work and evaluates project.

**BTHX 8900 Advanced Independent Study in Bioethics**

1-4 credit(s), max credits 8; prereq instr consent;
Instructor: Valapour, Maryam
Description: Student may contact the instructor or department for information.

**BTHX 8900 Advanced Independent Study in Bioethics**

1-4 credit(s), max credits 8; prereq instr consent;
Instructor: Turner, Leigh
Description: Student may contact the instructor or department for information.

**BTHX 8900 Advanced Independent Study in Bioethics**

1-4 credit(s), max credits 8; prereq instr consent;
Instructor: Marshall, Mary Faith
Description: Students propose area for advanced individual study with faculty guidance. Students write proposal, which includes outcome objectives and work plan. Faculty member directs student's work and evaluates project.

**BTHX 8900 Advanced Independent Study in Bioethics**

1-4 credit(s), max credits 8; prereq instr consent;
Instructor: Wolf, Susan M
Description: Student may contact the instructor or department for information.

**BTHX 8900 Advanced Independent Study in Bioethics**

1-4 credit(s), max credits 8; prereq instr consent;
Instructor: DeBruin PhD, Debra Ann
Description: Student may contact the instructor or department for information.
BTHX 8900 Advanced Independent Study in Bioethics  
1-4 credit(s), max credits 8; prereq instr consent;  
Instructor: Wolf, Susan M  
Description: Students propose area for advanced individual study with faculty guidance. Students write proposal, which includes outcome objectives and work plan. Faculty member directs student's work and evaluates project.

BTHX 8900 Advanced Independent Study in Bioethics  
1-4 credit(s), max credits 8; prereq instr consent;  
Instructor: DeBruin, PhD, Debra Ann  
Description: Students propose area for advanced individual study with faculty guidance. Students write proposal, which includes outcome objectives and work plan. Faculty member directs student's work and evaluates project.

BTHX 8900 Advanced Independent Study in Bioethics  
1-4 credit(s), max credits 8; prereq instr consent;  
Instructor: Turner, Leigh  
Description: Students propose area for advanced individual study with faculty guidance. Students write proposal, which includes outcome objectives and work plan. Faculty member directs student's work and evaluates project.

BTHX 8900 Advanced Independent Study in Bioethics  
1-4 credit(s), max credits 8; prereq instr consent;  
Instructor: Marshall, Mary Faith  
Description: Students propose area for advanced individual study with faculty guidance. Students write proposal, which includes outcome objectives and work plan. Faculty member directs student's work and evaluates project.

BTHX 8900 Advanced Independent Study in Bioethics  
1-4 credit(s), max credits 8; prereq instr consent;  
Instructor: Liaschenko, Joan  
Description: Students propose area for advanced individual study with faculty guidance. Students write proposal, which includes outcome objectives and work plan. Faculty member directs student's work and evaluates project.

BTHX 8900 Advanced Independent Study in Bioethics  
1-4 credit(s), max credits 8; prereq instr consent;  
Instructor: Valapour, Maryam  
Description: Student may contact the instructor or department for information.

BTHX 8900 Advanced Independent Study in Bioethics  
1-4 credit(s), max credits 8; prereq instr consent;  
Instructor: Ellis, Lynda B  
Description: The journal club is held once a week, over the lunch hour. The first meeting is organizational. Students sign up for the week they want to present a paper. This can be changed by swapping dates with another student; both students must agree to the swap. Students are free to chose any paper(s) on a bioinformatics topic to present. The instructor will offer suggestions if needed. At the organizational meeting, there is a short presentation on how to find articles on bioinformatics topics in online bibliographic databases. Students sign up for the UMN bioinformatics email list, and send the paper they will present to that list about a week before their presentation. This is added to the BJC webpage, and serves as an archive of past BJC articles of interest. All persons interested in bioinformatics are welcome to attend.  
Style: 100% Student Presentation.  
Grading: S-N - graded on attendance. Talk to the instructor if you must miss a session. If you must miss several session, you probably should not take this class.

BINF 5490 Bioinformatics Journal Club  
S-N only, 1 credit(s), max credits 12, 6 completions allowed;  
Instructor: Ellis, Lynda B  
Description: The journal club is held once a week, over the lunch hour. The first meeting is organizational. Students sign up for the week they want to present a paper. This can be changed by swapping dates with another student; both students must agree to the swap. Students are free to chose any paper(s) on a bioinformatics topic to present. The instructor will offer suggestions if needed. At the organizational meeting, there is a short presentation on how to find articles on bioinformatics topics in online bibliographic databases. Students sign up for the UMN bioinformatics email list, and send the paper they will present to that list about a week before their presentation. This is added to the BJC webpage, and serves as an archive of past BJC articles of interest. All persons interested in bioinformatics are welcome to attend.  
Style: 100% Student Presentation.  
Grading: S-N - graded on attendance. Talk to the instructor if you must miss a session. If you must miss several session, you probably should not take this class.

BINF 5490 Topics in Bioinformatics  
1-6 credit(s), max credits 12, 6 completions allowed;  
prereq instr consent;  
Instructor: Ellis, Lynda B  
Description: An independent study project class offered by members of the Graduate Faculty in Bioinformatics. Projects, number of credits, and grading system are determined by mutual agreement between the faculty member and student. Not all faculty have time and appropriate projects in any given semester. Students should check faculty research interests on the BI faculty web page, and contact faculty they are interested in working with individually to check on the availability of instructor and projects, before registering for this class.  
Style: As arranged  
Grading: As arranged

Bioinformatics  
777 Mayo

BINF 5480 Bioinformatics Journal Club  
S-N only, 1 credit(s), max credits 12, 6 completions allowed;  
Instructor: Ellis, Lynda B  
Description: The journal club is held once a week, over the lunch hour. The first meeting is organizational. Students sign up for the week they want to present a paper. This can be changed by swapping dates with another student; both students must agree to the swap. Students are free to chose any paper(s) on a bioinformatics topic to present. The instructor will offer suggestions if needed. At the organizational meeting, there is a short presentation on how to find articles on bioinformatics topics in online bibliographic databases. Students sign up for the UMN bioinformatics email list, and send the paper they will present to that list about a week before their presentation. This is added to the BJC webpage, and serves as an archive of past BJC articles of interest. All persons interested in bioinformatics are welcome to attend.  
Style: 100% Student Presentation.  
Grading: S-N - graded on attendance. Talk to the instructor if you must miss a session. If you must miss several session, you probably should not take this class.

BINF 5490 Topics in Bioinformatics  
1-6 credit(s), max credits 12, 6 completions allowed;  
prereq instr consent;  
Instructor: Ellis, Lynda B  
Description: An independent study project class offered by members of the Graduate Faculty in Bioinformatics. Projects, number of credits, and grading system are determined by mutual agreement between the faculty member and student. Not all faculty have time and appropriate projects in any given semester. Students should check faculty research interests on the BI faculty web page, and contact faculty they are interested in working with individually to check on the availability of instructor and projects, before registering for this class.  
Style: As arranged  
Grading: As arranged

Biology  
123 Snyder Hall

BIOL 1001 Introductory Biology: Evolutionary and Ecological Perspectives  
4 credit(s); Credit will not be granted if credit has been received for: BIOL 1001H; Meets CLE req of Biological Sciences;  
Instructor: STAFF  
Description: BIOL 1001, INTRODUCTORY BIOLOGY: EVOLUTIONARY AND ECOLOGICAL PERSPECTIVES introduces the discipline of biological science by focusing on the fundamental concept underlying all of biology-biological evolution. The course examines the mechanisms of evolution, the genetics underlying the process of heredity and evolutionary change (both within populations and as new species arise), and the historical context and social implications of the theory of evolution. You will learn about the evolutionary history of life on Earth (including the evolution of humans), sexual selection, and the evolution of behavior. We will also explore how evolution affects your life. At the end of the course, these concepts are put into the context of population, community, and ecosystem ecology, and conservation biology.  
Style: 65% Lecture, 35% Laboratory.  
Grading: 33% mid exam, 25% final exam, 15% reports/papers, 16% quizzes, 4% in-class presentation, 7% problem solving.  
Exam Format: multiple choice lecture exams

BIOL 1001H Introductory Biology I: Evolutionary and Ecological Perspectives  
4 credit(s); Credit will not be granted if credit has been received for: BIOL 1001; Meets CLE req of Biological Sciences;  
Instructor: Packer, Craig  
Description: Student may contact the instructor or department for information.

BIOL 1003 Evolution and Biology of Sex  
4 credit(s); Credit will not be granted if credit has been received for: BIOL 1001; Meets CLE req of Biological Sciences;  
Instructor: Cotner, Sehoya H  
Description: BIOL 1003, THE EVOLUTION AND BIOLOGY OF SEX examines evolution of sexual reproduction, genetics and biology of sex determination, sexual selection, human reproduction, disease transmission, the biology of love, human behavior, overpopulation and resource depletion. In both lecture and laboratory, you will explore what sex can teach us about ourselves by using scientific reasoning, articulation of testable hypotheses, and scientific data analysis. At the end of the course, you will have a better understanding of how sex affects our lives and be prepared to continue to learn about this fascinating topic.  
Style: 65% Lecture, 35% Laboratory.  
Grading: 33% mid exam, 25% final exam, 15% reports/papers, 16% quizzes, 4% in-class presentation, 7% problem solving.  
Exam Format: multiple choice lecture exams

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
BIOl 1009 General Biology  
4 credit(s); prereq high school chemistry; 1 term college chemistry recommended; Credit will not be granted if credit has been received for: BIOl 1099H; Meets CLE req of Biological Sciences;  
Instructor: STAFF  
Description: BIOL 1009, General Biology, is a course for non-CBS majors seeking a broad survey of biology in a single semester. The course covers the major concepts and principles of contemporary biology and also provides the foundation needed to pursue further studies in the biological sciences. Topics include: structure and function of biological molecules, cell structure and function, energy recruitment and utilization, cellular reproduction, flow of genetic information through organisms and populations, principles of inheritance, evolution and ecology. If you are in pre-health sciences or another science major outside of CBS, you may need BIOl 1009 to fulfill expectations of professional or graduate schools in your future.  
Style: 65% Lecture, 35% Laboratory.  
Grading: 34% mid exam, 21% final exam, 10% reports/papers, 25% quizzes, 10% other evaluation. Unannounced lecture quizzes  
Exam Format: multiple choice lecture exams

BIOl 1093 Biology Colloquium: Directed Study  
S-N only, 1 credit(s); prereq 1020 and concurrent enrollment  
Instructor: Hanna,Kathryn L  
Description: This is an introductory course covering genetics and bioethics, meeting both the writing intensive and social issues requirements. The class meets the CLE ENV theme, has no prerequisites and is open to anyone. Students may begin the Colloquium class any semester (preferably early in the academic year) and take it two times. These two semesters allows you to conduct a project (see BIOL 1093). This course is also the stepping stone to leadership responsibilities in the Biology Colloquium Program (see BIOL 3600).  
Style: 10% Discussion, 50% Field Trips, 40% Guest Speakers.  
Class time is split between large group sessions and tours to science facilities.  
Grading: 50% attendance, 50% reflection paper. Class attendance is required.

BIOL 1101W Heredity and Human Society  
3 credit(s); prereq No cr or if taken after 4003 or GCB 3022; Meets CLE req of Civic Life and Ethics; meets CLE req of Writing Intensive;  
Instructor: Fan,David P  
Description: This is an introductory course covering genetics and bioethics, meeting both the writing intensive and citizenship/public ethics requirements of the University. The genetics is presented in lecture, focuses on humans, and is tested using multiple choice exams. The ethics component involves writing papers on ethical case studies, both to present interesting ethical problems and to resolve ethical issues. The
Biology 1905 Freshman Seminar for the Biological Sciences: Sci, Sex & Society: How Do We Know What We Know?
A-F only, 2 credit(s), max credits 6; prereq freshman
Instructor: Philipp, Anne Elizabeth
Description: Tackle recent gains in our scientific understanding of sex from biological, evolutionary, social, and behavioral perspectives which impact identity. Develop and sharpen fundamental skills in the natural and social sciences.

Biology 1905 Freshman Seminar for the Biological Sciences: Living Sustainably in Urban Ecosystems
A-F only, 2 credit(s), max credits 6; prereq freshman
Instructor: Hobbie, Sarah E
Description: We will explore what it means to live sustainably in cities, by analyzing where our food, energy, and materials come from and where our waste products go. We will do this through an analysis of our individual actions and why we make the choices that we do, as well as through field trips to learn about the sources of energy and food for the Twin Cities and treatment of garbage and sewage. In addition, we will use the Freshman Seminar as an opportunity to become more comfortable with the University of Minnesota.

Biology 1905 Freshman Seminar for the Biological Sciences: Photographing the University Community
A-F only, 2 credit(s), max credits 6; prereq freshman
Instructor: Lange, Alex John
Description: Photographing the University Community will provide students and faculty an opportunity to explore the art of photojournalism and documentary photography. Students and faculty will take photographs on the University campus or the surrounding neighborhoods and then each student and faculty member will assemble their photographs into a coherent essay. The course will include social themes, and have a strong writing component as well as the obvious focus on photography.

Biology 1905 Freshman Seminar for the Biological Sciences: Cloning, Politics, and Religion
A-F only, 1 credit(s), max credits 6; prereq freshman
Instructor: Blumenfeld, Martin
Description: Scientists can clone animals, plants, cells, and DNA. Is this a good thing? In this seminar, we’ll discuss cloning, its benefits, its limitations, and the ethical problems posed by its
BIOL 1905 Freshman Seminar for the Biological Sciences: Biotech for Fun and Profit
A-F only, 1 credit(s), max credits 6; prereq freshman;
Instructor: Blumenfeld, Martin
Description: Biotech is the use of technology to manipulate living systems for human benefit. It's a complex and fascinating subject that blends science and technology with a broad range of non-scientific, non-technical human activities. The major focus of biotech is making money. In this seminar, we'll discuss biotech, its profit motives, and its relationships to politics.

BIOL 1905 Freshman Seminar for the Biological Sciences: The Nature of Research: Is It For You?
A-F only, 3 credit(s), max credits 6; prereq freshman;
Instructor: Mark, David
Description: The Nature of Research Life: There will be two parts to this course. In the first part we will have formal classroom meetings where you will meet with researchers from all levels -- from current undergraduates working in labs to Full Professors. We will discuss how and why they ended up in research. In the second part you will participate in a National Science Foundation funded research project. You will receive hands on experience in using state of the art techniques to address basic scientific questions concerning Cell Biology.

BIOL 1905 Freshman Seminar for the Biological Sciences: From Ebola to H1N1
A-F only, 1 credit(s), max credits 6; prereq freshman;
Instructor: Wick, Susan M
Description: This seminar considers viral diseases that fairly recently have emerged among humans and examines the ecological, sociological, political, and economic factors that contribute to these diseases. We will also examine some basic elements of viral biology and evolution and how these particular viruses affect humans. There will be an average of 20-30 pages of reading each week and class members will be required to submit a discussion point or question on the readings each week. Students will do a group presentation to the class on a virus of their choice and afterward write up a short summary of the topic, their presentation, and the class discussion that accompanied it. Some weeks will also set aside time to consider college life topics such as time management, study abroad, career planning, or to hear from a panel of upperclassmen on how to navigate life as an undergraduate.

BIOL 1905 Freshman Seminar for the Biological Sciences: Being Human
A-F only, 2 credit(s), max credits 6; prereq freshman;
Instructor: Phillips, Jane Ann
Description: There is nothing more fascinating to humans than humans. From the biology of our bodies to the spirituality of our minds, we spend a lifetime investigating who we are. In this seminar, we will explore a small subset of all that it means to be human, particularly focusing on the intersection of biology, evolution, and ethics. We will explore where we came from to where we are going, how we study ourselves and how we use the information we find to better our health, and how better self-awareness will lead us to decisions we can live with. The course will also take time to explore what it means to be in college, what resources are available to help you succeed, and some strategies for your success.
Style: 10% Lecture, 50% Discussion, 40% Student Presentation. Presentations involve leading group discussions.
Grading: 40% reports/papers, 40% in-class presentation, 20% class participation.

BIOL 1905 Freshman Seminar for the Biological Sciences: GENOMICS: Apps in Biomed Sci and Biotechnology
A-F only, 1 credit(s), max credits 6; prereq freshman;
Instructor: Hackett Jr, Perry B
Description: DNA and Genomes?they are discussed in just about every modern context, from modern medical science and biotechnology to crime scene investigations, law, medical insurance policies, and ethics of retooling animal and plant genomes. In this seminar we will consider interfaces between science, politics, religion and the press. The topic will begin with some of the recent findings of science and medicine and then consider some ramifications that you will encounter in your daily lives as genomics plays a larger role as applications develop. Students and visitors will discuss a variety of topics including bioethics, genetic counseling, CSI in Minnesota, and a state legislator, as well as DNA profiling in medicine, the future of retooling of plant and animal genomes, and human evolution in the future. We will try to develop personal strategies that will allow us to evaluate controversies pertaining to recent findings and applications of DNA technologies.

BIOL 1905 Freshman Seminar for the Biological Sciences: Understand the Evolution-Creationism Controversy
A-F only, 1 credit(s), max credits 6; prereq freshman;
Instructor: Moore, Randy
Description: This course has two goals: 1) to help you succeed at the University of Minnesota, and 2) to help you develop your own understanding and appreciation of the evolution-creationism controversy. Succeeding at the University of Minnesota?Each week we'll talk about concerns and/or questions you have about life at the U. Although I can't fix your parking tickets, I can tell you about what you'll need to do to succeed here. The evolution-creationism controversy?We'll discuss the many aspects of this controversy, including its history, legacy, relevance, and key people. We will also discuss a variety of issues related to the controversy, including those involving court decisions, public opinion, and related issues (e.g., racism, politics, etc.). Many people are emotional and opinionated about the evolution-creationism controversy. Although the focus of this course is not on opinions, we will talk about why so many people feel strongly about these issues, and why the controversy persists. You'll be interested in, and probably surprised by, what you learn.

BIOL 2001 Career Planning for Biologists
S-N only, 1 credit(s);
Instructor: Underwood, Jean M
Description: This course leads you through the steps of career planning and decision making. You will assess your strengths, interests and values. You will learn how to research careers. You will learn about successful strategies for setting goals and making decisions. Not only will you learn about campus resources but you will attend and participate in campus activities.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
In addition to online discussions and assignments, you will have a required one-to-one meeting with the instructor.

**Style:** 100% Web Based. One-to-one meeting with instructor is required. Time will be spent attending activities and events in addition to online component.

**Grading:** Points will be earned through the completion of required course activities.

### BIOL 2001 Career Planning for Biologists

**S-N only, 1 credit(s);**

**Instructor:** Georgeson, Sara K

**Description:** Student may contact the instructor or department for information.

### BIOL 2001 Career Planning for Biologists

**S-N only, 1 credit(s);**

**Instructor:** LeFay, Lisa

**Description:** This course leads you through the steps of career planning and decision making. You will assess your strengths, interests and values. You will learn how to research careers. You will learn about successful strategies for setting goals and making decisions. Not only will you learn about campus resources but you will attend and participate in campus activities. Discussions are both online and held in class. There is a very strong web-based component to the class.

**Style:** 5% Lecture, 20% Discussion, 15% Small Group Activities, 10% Field Trips, 50% Web Based.

### BIOL 2001 Career Planning for Biologists

**S-N only, 1 credit(s);**

**Instructor:** Mraz, Anna Catherine

**Description:** This course leads you through the steps of career planning and decision making. You will assess your strengths, interests and values. You will learn how to research careers. You will learn about successful strategies for setting goals and making decisions. Not only will you learn about campus resources but you will attend and participate in campus activities. Discussions are both online and held in class. There is a very strong web-based component to the class.

**Style:** 5% Lecture, 20% Discussion, 15% Small Group Activities, 10% Field Trips, 50% Service Learning.

### BIOL 2001 Career Planning for Biologists

**S-N only, 1 credit(s);**

**Instructor:** Fraasch, Nancy S

**Description:** This course leads you through the steps of career planning and decision making. You will assess your strengths, interests and values. You will learn how to research careers. You will learn about successful strategies for setting goals and making decisions. Not only will you learn about campus resources but you will attend and participate in campus activities. Discussions are both online and held in class. There is a very strong web-based component to the class.

**Style:** 5% Lecture, 20% Discussion, 15% Small Group Activities, 10% Field Trips, 50% Web Based.

### BIOL 2002 Foundations of Biology for Biological Sciences Majors, Part I

**A-F only, 5 credit(s);**

**prereq [[CHEM 1021 or equiv], CBS major] or dept consent ; calculus I or equiv recommended; Credit will not be granted if credit has been received for: BIOL 2002H; meets CLE req of Biological Sciences;**

**Instructor:** Decker, Mark David

**Description:** BIOL 2002 is intended for majors in the College of Biological Sciences. It is the first of two foundational courses that cover core biological concepts, from biomolecules to ecosystems. This course emphasizes evolution, organismal diversity, and genetics within the context of problem solving and application. The lecture/recitation sections are integrated with laboratory exercises to give students basic experience with the methods of modern biology. Student participation is encouraged.

**Style:** 10% Lecture, 10% Discussion, 50% Laboratory, 30% Small Group Activities. This class is based on a team-based learning model.

**Grading:** 13% mid exam, 12% final exam, 15% special projects, 20% quizzes, 5% class participation, 35% laboratory evaluation.

### BIOL 2002H Foundations of Biology for Biological Sciences Majors, Part I

**A-F only, 5 credit(s);**

**prereq [CHEM 1021 or equiv, CBS major] or Concurrent registration is required (or allowed) in ; calculus I or equiv recommended; Credit will not be granted if credit has been received for: BIOL 2002; meets CLE req of Biological Sciences;**

**Instructor:** Decker, Mark David

**Description:** BIOL 2002 is intended for majors in the College of Biological Sciences. It is the first of two foundational courses that cover core biological concepts, from biomolecules to ecosystems. This course emphasizes evolution, organismal diversity, and genetics within the context of problem solving and application. The lecture/recitation sections are integrated with laboratory exercises to give students basic experience with the methods of modern biology. Student participation is encouraged.

**Style:** 10% Lecture, 10% Discussion, 50% Laboratory, 30% Small Group Activities. This class is based on a team-based learning model.

**Grading:** 13% mid exam, 12% final exam, 15% special projects, 20% quizzes, 5% class participation, 35% laboratory evaluation.

### BIOL 2003 Foundations of Biology for Biological Sciences Majors, Part II

**A-F only, 3 credit(s);**

**prereq [2002 or 2002H or CBS major], concurrent enrollment in BIOL 2004 (must register for 2004 before 2003), [MATH 1271 or equiv]; Credit will not be granted if credit has been received for: BIOL 2003H;**

**Instructor:** Sterner, Robert Warner

**Description:** BIOL 2003 is intended for majors in the College of Biological Sciences. It is the second of two foundational courses that cover core biological concepts, from biomolecules to ecosystems. This course emphasizes ecology and biochemistry within the context of problem solving and application. This second semester emphasizes application of quantitative skills, concepts, and tools to biological problems through independent research. While students will meet regularly with instructors, they also will be responsible for scheduling their time in an open lab in order to complete their research project. At the end of this course, students will be qualified to enter a faculty research lab, internship, or other venue of active science.

### BIOL 2003 Foundations of Biology for Biological Sciences Majors, Part II

**A-F only, 3 credit(s);**

**prereq [2002 or 2002H or CBS major], concurrent enrollment in BIOL 2004 (must register for 2004 before 2003), [MATH 1271 or equiv]; Credit will not be granted if credit has been received for: BIOL 2003H;**

**Instructor:** Brooker, Robert James

**Description:** BIOL 2003 is intended for majors in the College of Biological Sciences. It is the second of two foundational courses that cover core biological concepts, from biomolecules to ecosystems. This course emphasizes ecology and biochemistry within the context of problem solving and application. This second semester emphasizes application of quantitative skills, concepts, and tools to biological problems through independent research. While students will meet regularly with instructors, they also will be responsible for scheduling their time in an open lab in order to complete their research project. At the end of this course, students will be qualified to enter a faculty research lab, internship, or other venue of active science.
BIOL 2003 Foundations of Biology for Biological Sciences Majors, Part II
A-F only, 3 credit(s); prerequisite [2002 or 2002H or CBS major], concurrent enrollment in Biol 2004 (must register for 2004 before 2003H); Credit will not be granted if credit has been received for: BIOL 2003H
Instructor: Wassenberg, Deena Marie
Description: This course emphasizes ecology and biochemistry within the context of problem solving and application. Emphasis is placed on application of quantitative skills, concepts, and tools to biological problems through independent research.

BIOL 2003H Foundations of Biology for Biological Sciences Majors, Part II
A-F only, 3 credit(s); prerequisite [2002 or 2002H], concurrent enrollment in Biol 2004H (must register for 2004H before 2003H); [MATH 1271 or equiv], honors; Credit will not be granted if credit has been received for: BIOL 2003; Instructor: Sterner, Robert Warner
Description: This course emphasizes ecology and biochemistry within the context of problem solving and application. Emphasis is placed on application of quantitative skills, concepts, and tools to biological problems through independent research.

BIOL 2002 General Botany
A-F only, 4 credit(s); prerequisite Grade of at least C- in 2311 or 2321; Exam Format: multiple choice, short essay, short answer
Grading: 73% Lecture, 27% Laboratory.
Instructor: May, Georgiana
Description: This course emphasizes ecology and biochemistry within the context of problem solving and application. Emphasis is placed on application of quantitative skills, concepts, and tools to biological problems through independent research.

BIOL 2004 Foundations of Biology for Biological Sciences Majors, Part II Laboratory
A-F only, 2 credit(s); prerequisite [2002 or 2002H or CBS major], concurrent enrollment in Biol 2004 (must register for 2004 before 2003); Credit will not be granted if credit has been received for: BIOL 2004H;
Instructor: STAFF
Description: Accompanies 2003. Students design/perform research projects. Relationship between biology and other sciences. Applying quantitative skills, scientific method, and modern biological tools to real-world questions.

BIOL 2004H Foundations of Biology for Biological Sciences Majors, Part II Laboratory
A-F only, 2 credit(s); prerequisite [2002 or 2002H], honors, concurrent enrollment in Biol 2003H (must register for 2004 before 2003H); Credit will not be granted if credit has been received for: BIOL 2004; Instructor: Kirkpatrick, Catherine
Description: Student may contact the instructor or department for information.

BIOL 2005 Animal Diversity Laboratory
1 credit(s); prerequisite One semester of college biology; Credit will not be granted if credit has been received for: BIOL 2005;
Instructor: STAFF
Description: This is a laboratory course and requires dissection and direct observation of animal diversity with emphasis upon morphology. The phylogenetic survey, from unicellular protists through the vertebrates, includes a wide array of organismal variation. Special attention is placed upon mammalian anatomy through dissection of the fetal pig. Students develop an understanding of the patterns and complexities of animal diversity through the experience of hands-on laboratory exercises.
Style: 5% Discussion, 95% Laboratory.
Grading: 55% mid exam, 37% final exam, 8% quizzes.
Exam Format: multiple choice/practical

BIOL 2012 General Zoology
4 credit(s); prerequisite One semester of college biology; Credit will not be granted if credit has been received for: BIOL 2005;
Instructor: Barker, Frederick K
Description: The course provides a framework for understanding the major groups of animals (phyla) on Planet Earth, ranging from unicellular protozoa to arthropods and mammals and including their marine, freshwater, and terrestrial representatives. The phyla are traced through evolutionary time to see how they solved the common problems of existence (e.g., feeding, movement, respiration, reproduction) and how their solutions have given rise to changing levels of structural complexity. Video clips and slides are liberally used to illustrate aspects of behavior, ecology, and relevance to human well-being. The laboratory is an integral part of the course; activities are hands-on and require dissections. The course is designed for undergraduate students in liberal arts and natural sciences and for pre-professional students in health sciences, agriculture, and natural resources. Lecture exams are based largely on lecture content and review questions from the text. Laboratory tests are practical exams quizzing knowledge of actual specimens. The lecture text is Hickman et al., Animal Diversity, (5th ed). The lab text is Smith and Schenck, Exploring Zoology: A Laboratory Guide.
Style: 73% Lecture, 27% Laboratory.
Grading: 4 lecture exams; 4 lab exams
Exam Format: Lecture exams require short answers based on specific knowledge of concepts presented in lectures

BIOL 2022 General Botany
A-F only, 3 credit(s); prerequisite One semester of college biology;
Instructor: May, Georgiana
Description: To introduce principles of plant biology, including the organization, growth and development, reproduction and ecology of plants and related organisms; To gain an understanding of the plant evolution and diversity; To promote an integrated understanding of plant structure and function, and of interactions between plants and associated organisms; To explore the utilization of plants by humans; and To prepare for further study of basic plant biology; of the roles of plants in the environment; of plants as source materials for agriculture, biotechnology, horticulture and forestry.
Style: 50% Lecture, 50% Laboratory.
Grading: 27% mid exam, 27% final exam, 13% quizzes, 33% laboratory evaluation. 5% optional extra credit paper
Exam Format: multiple choice, short essay, short answer

BIOL 2331 Anatomy and Physiology I
A-F only, 4 credit(s); prerequisite Grade of at least C- in 2311 or placement test; prerequisite CLE req of Biological Sciences;
Instructor: Gunbar, Robert Lee
Description: This course is required for pre-medical and pre-dental students. It covers the basic anatomical and physiological principles of the human body. It is designed to provide a foundation for advanced studies in medicine and dentistry.
BIOL 2960H Explorations in the Biological Sciences: Honors Colloquium
A-F only, 1 credit(s); prereq CBS honors program, soph, dept consent;
Instructor: Berman, Judith G
Description: Explorations in the Biological Sciences is designed to help students build skills in reading and interpreting primary research papers, presenting concepts, and writing scientific proposals. Students are matched with a faculty mentor to discuss their research, write a proposal according to Undergraduate Research Opportunities Program (UROP) guidelines, and participate in peer review through study sessions. Faculty and career professionals in the biological sciences serve as guest speakers who introduce students to avenues of research and careers.

BIOL 3007W Plant, Algal, and Fungal Diversity and Adaptation 4 credit(s); prereq One semester college biology, CHEM 1021; Meets CLE req of Writing Intensive;
Instructor: Mc Laughlin, David J
Description: This course will introduce students in biology and the plant and environmental sciences to the evolution and diversity of plants and fungi, and to their adaptations to the environment. For each major group of algae, fungi, bryophytes and vascular plants, the following will be treated: ecosystem role; economic importance; morphology and anatomy, development and life cycles; and physiological adaptations, including uptake and transport of nutrients, water movement, hormones, photosynthesis. The course will also provide an introduction to plant communities and ecosystems, and the interactions among organisms. The laboratory will provide a hands-on introduction to major groups of plants and fungi, emphasizing how structure and reproduction are adapted to habitat. The lab will also provide experience in formulating hypotheses, designing experiments and analyzing data. This course is writing intensive; therefore, a significant portion of your grade will be based on written work. You will write two papers that are based on experiments done in the lab, plus two summaries of scientific journal articles related to laboratory topics. You will also prepare two course overview essays that will help you integrate the topics covered in the class. Textbook: Raven, P.H., Evert, R.F., Eichhorn, S.E., 2005, Biology of Plants, 7th edition, W.H. Freeman & Company/Worth.
Style: 50% Lecture, 10% Discussion, 40% Laboratory.
Grading: 24% reports/papers, 34% written homework, 6% journal. 66% laboratory quiz scores, in class informal lecture summaries, mid exam, final exam. Two course overview essays (4%).
Exam Format: Short answers and essay questions.

BIOL 307W Plant, Algal and Fungal Diversity and Adaptation 4 credit(s); prereq One semester college biology, CHEM 1021; Meets CLE req of Writing Intensive;
Instructor: Mc Laughlin, David J
Description: This course will introduce students in biology and the plant and environmental sciences to the evolution and diversity of plants and fungi, and to their adaptations to the environment. For each major group of algae, fungi, bryophytes and vascular plants, the following will be treated: ecosystem role; economic importance; morphology and anatomy, development and life cycles; and physiological adaptations, including uptake and transport of nutrients, water movement, hormones, photosynthesis. The course will also provide an introduction to plant communities and ecosystems, and the interactions among organisms. The laboratory will provide a hands-on introduction to major groups of plants and fungi, emphasizing how structure and reproduction are adapted to habitat. The lab will also provide experience in formulating hypotheses, designing experiments and analyzing data. This course is writing intensive; therefore, a significant portion of your grade will be based on written work. You will write two papers that are based on experiments done in the lab, plus two summaries of scientific journal articles related to laboratory topics. You will also prepare two course overview essays that will help you integrate the topics covered in the class. Textbook: Raven, P.H., Evert, R.F., Eichhorn, S.E., 2005, Biology of Plants, 7th edition, W.H. Freeman & Company/Worth.
Style: 50% Lecture, 10% Discussion, 40% Laboratory.
Grading: 24% reports/papers, 34% written homework, 6% journal. 66% laboratory quiz scores, in class informal lecture summaries, mid exam, final exam. Two course overview essays (4%).
Exam Format: Short answers and essay questions.

BIOL 3007W Plant, Algal and Fungal Diversity and Adaptation 4 credit(s); prereq One semester college biology, CHEM 1021; Meets CLE req of Writing Intensive;
Instructor: Mc Laughlin, David J
Description: This course will introduce students in biology and the plant and environmental sciences to the evolution and diversity of plants and fungi, and to their adaptations to the environment. For each major group of algae, fungi, bryophytes and vascular plants, the following will be treated: ecosystem role; economic importance; morphology and anatomy, development and life cycles; and physiological adaptations, including uptake and transport of nutrients, water movement, hormones, photosynthesis. The course will also provide an introduction to plant communities and ecosystems, and the interactions among organisms. The laboratory will provide a hands-on introduction to major groups of plants and fungi, emphasizing how structure and reproduction are adapted to habitat. The lab will also provide experience in formulating hypotheses, designing experiments and analyzing data. This course is writing intensive; therefore, a significant portion of your grade will be based on written work. You will write two papers that are based on experiments done in the lab, plus two summaries of scientific journal articles related to laboratory topics. You will also prepare two course overview essays that will help you integrate the topics covered in the class. Textbook: Raven, P.H., Evert, R.F., Eichhorn, S.E., 2005, Biology of Plants, 7th edition, W.H. Freeman & Company/Worth.
Style: 50% Lecture, 10% Discussion, 40% Laboratory.
Grading: 24% reports/papers, 34% written homework, 6% journal. 66% laboratory quiz scores, in class informal lecture summaries, mid exam, final exam. Two course overview essays (4%).
Exam Format: Short answers and essay questions.

BIOL 3209 Understanding the Evolution-Creationism Controversy A-F only, 3 credit(s); prereq 1001 or 1009 or 2002 or equiv; Meets CLE req of Civic Life and Ethics;
Instructor: Moore, Randy
Description: This course will help you develop your own understanding of the evolution-creationism controversy and, in the process, prepare you to understand how the controversy (and its associated civic and ethical issues) affects communities in their everyday lives. Although we will discuss the science underlying evolution, most of controversy is based not on science, but on social and civic issues. We'll examine how society has debated and otherwise dealt with the controversy, especially how 1) the controversy has developed in the past 150 years, and 2) how various ethical and civic issues have pervaded the controversy, and 3) how the controversy has been assessed by individuals, organizations, and communities (e.g., churches, politicians). Students will have many opportunities to apply their knowledge to modern versions of the controversy (e.g., intelligent design?) through discussions, assignments, guest speakers, and mock trials. These activities will help you acquire the interests, skills, and breadth of experiences to be an informed and engaged citizen. The course-lectures, discussions, activities, and assignments will challenge you to understand how the many ethical principles, beliefs, and attitudes of individuals and various social groups were developed, affect, and are affected by, the ethical and societal intersections of science, religion, politics, and education. A basic part of this understanding is an awareness of how ethics influence how individuals and groups determine what should be done with important, contentious issues and information. For example, what processes do stakeholders such as educators, churches, and politicians use to address issues that involve collisions between society and religion? Finally, this course will help you develop your own understanding and appreciation of the evolution-creationism controversy. We'll discuss the many aspects of this controversy, including its history, legacy, relevance, and key people. We will also discuss a variety of issues related to the controversy, including those involving court decisions, public opinion, and related issues (e.g., racism, politics, etc.). Many people are emotional and opinionated about the evolution-creationism controversy. Although the focus of this course is not on opinions, we will talk about why so many people feel strongly about these issues, and why the controversy persists. You'll be interested in, and probably surprised by, what you learn.

BIOL 3211 Animal Physiology 3 credit(s); prereq [1002 or 1009 or 2003 or equiv]; CHEM 1021; Concurrent registration in 2005 is strongly recommended;
Instructor: Palmer, Melissa L
Description: The main objective is understanding how animals carry out a variety of functions (e.g. respiration, movement). We will start by looking at some underlying general principles (e.g. diffusion, membrane voltages) and structures (e.g. membrane receptors) that will be useful in understanding how animals carry out these functions. We will then look at a number of problems faced by animals (e.g. locomotion, osmoregulation) and the various systems animals use to solve these problems (e.g. gills, lungs). We will describe these systems at a variety of levels --

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organismal, organ, tissue, cellular, and subcellular. There are two main goals of this course. One is to acquaint you with specific physiological systems. The other is to give you an overview that will help you visualize organisms in a way that integrates the various levels of organization. The hope is that, as you are introduced to more detailed descriptions of cellular and subcellular processes in later courses, you will see how these processes fit into the the entire organism.

**Style:** 100% Lecture. 3 hours/week lecture

**Grading:** 50% final exam, 50% other evaluation. midterm exams (25% each)

**Exam Format:** multiple choice

**BIOL 3211 Animal Physiology**

3 credit(s); prerequisite [1002 or 1009 or 2003 or equiv], CHEM 1021; Concurrent registration in 2005 is strongly recommended;

**Instructor:** Goldstein, Stuart F

**Description:** The main objective is understanding how animals carry out a variety of functions (e.g. respiration, movement). We will start by looking at some underlying general principles (e.g. diffusion, membrane voltages) and structures (e.g. membrane receptors) that will be useful in understanding how animals carry out these functions. We will then look at a number of problems faced by animals (e.g. the need for gas exchange) and the various systems animals use to solve these problems (e.g. gills, lungs). We will describe these systems at a variety of levels -- organismal, organ, tissue, cellular, and subcellular. There are two main goals of this course. One is to acquaint you with specific physiological systems. The other is to give you an overview that will help you visualize organisms in a way that integrates the various levels of organization. The hope is that, as you are introduced to more detailed descriptions of cellular and subcellular processes in later courses, you will see how these processes fit into the the entire organism.

**Style:** 100% Lecture. 3 hours/week lecture

**Grading:** 50% final exam, 50% other evaluation. midterm exams (25% each)

**Exam Format:** multiple choice

**BIOL 3303 Peer Leadership Practicum**

S-N only, 1 credit(s); max credits 2; prerequisite 1301, 2301, CBS dean’s scholar; 2001 recommended;

**Instructor:** Letawsky Shultz, Nicole

**Description:** This course is designed to prepare you for your role as a Deans? Scholars peers mentor and educator through learning how to assist first-year students in a successful transition to college. Through reflective activities, simulation exercises, a group project and class discussion, we will explore how your personal experiences influence your understanding, practices, and effectiveness as a peer mentor and educator. The course also offers a learning laboratory for you to reflect and discuss the various aspects of your student leadership experience with a community of fellow leaders. You will work with a group of peer mentors to develop and deliver a class lesson in the Biology 1301: Becoming a Reflective Teacher course for the first-year Deans? Scholars.

**BIOL 3407 Ecology**

3 credit(s); prerequisite [One semester college biology], [MATH 1142 or MATH 1271 or MATH 1281 or equiv]; Credit will not be granted if credit has been received for: EEB 3001;

**Instructor:** Tilman, David

**Description:** Biology 3407 is presented as a series of lectures, discussion sections, and laboratory exercises. The goal of this course is to help you explore: the scientific principles, concepts and theories that are the foundation of ecology; how these are applied to major ecological and scientific issues; including those related to human impacts on the functioning, productivity and sustainability of ecosystems at a global scale; and the process of scientific creativity, including hypothesis generation, the design of experiments and observation, critical evaluation of data, the inferences that can be drawn from data, and the implications of these inferences. Laboratory and discussion sections will be led by a teaching assistant (TA) from the Ecology Graduate Program. These sections will illustrate, amplify and explain ecological concepts. Your laboratory experience will include completion of an independent research project. Lecture material, assigned readings from the text, and the scientific papers discussed in both lecture and laboratory form the basis of all examination questions.

**BIOL 3409 Evolution**

3 credit(s); prerequisite One semester college biology; Credit will not be granted if credit has been received for: BIOL 5409;

**Instructor:** Zink, Robert Martin

**Description:** This course presents an overview of the biology of evolutionary change. After a brief review of the history of thought in evolutionary biology, genetic mechanisms of evolution change are presented, including mutation and recombination, natural selection and genetic drift. Population genetics and molecular evolution are explored in depth. Examples of macroevolution are presented including adaptation by natural selection, sexual selection, speciation, species concepts and extinction. Human health is used to illustrate the adaptive ability of microorganisms, and we also touch on the evolution of aging.

**BIOL 3411 Introduction to Animal Behavior**

3 credit(s); prerequisite One semester of college biology; Credit will not be granted if credit has been received for: BIOL 3811;

**Instructor:** Bee, Mark Allen

**Description:** This course introduces the biological study of behavior. Although students from all disciplines are welcome, it is one of three core courses for undergraduate majors in EEB. About half of the course is taught in lecture form, and half in the laboratory. The course covers mechanisms in behavior, including behavior genetics, hormonal and neural mechanisms. The course emphasizes an evolutionary approach to behavior, outlining ideas about feeding, social and reproductive behavior, mating systems, altruism, communication and other contemporary issues in behavioral biology. Laboratory exercises stress experimental approaches to hypothesis testing and involve work with real animals. Students will spend several weeks at the end of the semester conducting an independent project.

**Style:** 40% Lecture, 60% Laboratory.

**Grading:** 20% mid exam, 20% final exam, 13% special projects, 13% class participation, 34% laboratory evaluation.

**Exam Format:** Multiple choice, short answer and short essay.

**BIOL 3503 Biology of Aging**

2 credit(s); prerequisite 1002 or 1009 or 2003 or equiv;

**Instructor:** Curtisger, James W

**Description:** The biology of aging is an integrative discipline, encompassing studies of molecules, genes, cells, tissues, organs, organisms, and populations. In this course we will examine several general areas of research on aging in both humans and model experimental systems, including age-related changes in populations, age-related changes in individuals, genes that influence aging, cellular mechanisms, evolution of senescence, interventions to slow aging, and future prospects for human societies. The course is intended for undergraduates who have completed a college-level course in general biology.

**Style:** 80% Lecture, 15% Discussion, 5% Guest Speakers.

**Grading:** 80% quizzes, 20% extra credit for reading optional papers and entering in notebooks.

**Exam Format:** Multiple choice, problem, and short essay.

**BIOL 3600 Directed Instruction**

S-N only, 1-2 credit(s), max credits 6, 6 completions allowed; prerequisite 1020, upper div, application, instr consent; up to 4 cr may apply to major;

**Instructor:** Hanna, Kathryn L

**Description:** This course allows students to gain experience in organizing, leading and evaluating a small group of students by becoming a Student Leader for the Biology Colloquium class (Bio 3010). Biology Colloquium Student leaders attend the weekly Biology Colloquium and Student Leader meetings,
set up small-group tours, evaluate student journal and tours, and hold office hours. About 6 hours a week are involved during the semester. Prior to the beginning of the semester, a training/orientation session is required and two Student Leader group meetings are held throughout the semester. To be eligible to be a Student Leader, students need to have completed two semester of the Biology Colloquium class (Biol 1020) and be in satisfactory progress within their degree objectives. An application is required and is available at http://biosci.cbs.umn.edu/bcq or from the instructor.

Style: Must attend all class sessions of a Biol 1020 section.

BIOL 3610 Internship: Professional Experience in Biological Sciences
S-N only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq Acceptance into CBS Internship Program, internship workshop, college consent;
Instructor: Hanka,Kathryn L
Description: Undergraduate students can earn credit for a structured internship that matches their academic and/or career goals in life science with off-campus learning opportunities. Biological sciences internships in industry, non-profit organizations, and government agencies may be found through the Career Center for Science and Engineering (50 Lind Hall, Minneapolis Campus). The number of credits is variable and will be based on time spent on-site and other course requirements. Students must commit to a minimum of 10 hours/week/semester (at least 150 hours). Students will submit a Learning Agreement Form developed in consultation with the on-site internship supervisor and the faculty instructor. Students must meet individually with the instructor in order to register for credit. If a student has questions about a specific internship opportunity, contact the instructor at khanna@umn.edu. Examples of organizations that have hosted internship students include, Hennepin County Medical Center, Minnesota Zoo, MN Bureau of Criminal Apprehension, MN Dept. of Natural Resources, Medtronic, Medtox, Wildlife Rehabilitation Center, and many, many other organizations.

Style: Interns will meet as a group for 2 or 3 evening sessions, TBA.

Grading: 100% other evaluation. Students are required to keep a weekly journal and write a final reflective paper. Beyond one credit, students may help select the type of assignments that enable them to enhance their internship experience. S/N grading only.

BIOL 3700 Undergraduate Seminar: Gateway to Research
1 credit(s), max credits 9, 3 completions allowed;
Instructor: Phillips,Jane Ann
Description: "Somewhere, something incredible is waiting to be known." Carl Sagan In this course, students will explore the nature of research with the ultimate goal of getting into a research project and experiencing the excitement of real science. Specific course goals include: Learning about the research enterprise; Becoming familiar with University resources (e.g., libraries, University research facilities, administrative support facilities, others) that support research; Learning how to read research papers; Exploring the ethics of research; Preparing for your research experience, from finding a mentor to having your safety training, lab skills in order; the course will begin with a four-week set of activities on effectively preparing for, listening to and discussing research papers. Students will then select five seminars of interest offered in the following series: Biochemistry, Molecular Biology & Biophysics (Wednesdays 4-5 pm), Genetics, Cell Biology & Development (Thursdays at noon); Plant Biology (Tuesdays at 3:30 pm); or Microbiology (Mondays at noon). Following each seminar, students will discuss their seminar experience in the classroom.

Grading: 50% attendance, 50% class participation. Attendance in this course is required.

BIOL 3700 Undergraduate Seminar: Research Seminars in the Biological Sciences
1 credit(s), max credits 9, 3 completions allowed;
Instructor: Bramble,Robert Morgan
Description: BIOL 3700: Research Seminars in The Biological Sciences offers undergraduate students the opportunities and skills to expand and understand their interest in the biological sciences by becoming more active participants in research seminars. The course will be divided into three parts: i) classroom activities that prepare students for attending a typical research talk or seminar; ii) seminar attendance, in which students will prepare for and attend five departmental seminars; and iii) student-directed classroom discussions of seminars. Since the format of a research seminar is new to many undergraduate students and differs from most lecture formats, the course will begin with a four-week set of activities on effectively preparing for, listening to and discussing research seminars. Students will then select five seminars of interest offered in the following series: Biochemistry, Molecular Biology & Biophysics (Wednesdays 4-5 pm), Genetics, Cell Biology & Development (Thursdays at noon); Plant Biology (Tuesdays at 3:30 pm); or Microbiology (Mondays at noon). Following each seminar, students will discuss their seminar experience in the classroom.

Grading: 65% Discussion. 35% Attending Seminars

BIOL 3960H Honors Seminar
A-F only, 1 credit(s), max credits 2; prereq CBS honors;
Instructor: Decker,Mark David
Description: Student may contact the instructor or department for information.

BIOL 3960H Honors Seminar
A-F only, 1 credit(s), max credits 2; prereq CBS honors;
Instructor: Wick,Susan M
Description: The class examines attributes of successful oral communication in science. Each student presents a 15-minute talk on some aspect of biology as it relates to society. The talk is videotaped, other class members and the instructor provide feedback on the presentation, and the student writes an analysis of the presentation and a self-assessment relative to the comments made by others.

BIOL 3960H Honors Seminar
A-F only, 1 credit(s), max credits 2; prereq CBS honors;
Instructor: Moore,Randy
Description: Student may contact the instructor or department for information.

BIOL 4003 Genetics
3 credit(s); prereq [BIOSC 3021 or BIOL 4331, [any CBS major or major in [animal science or applied plant science or BA biology or BA microbiology or nutrition or physiology or biology/society/environment]] or instr consent ; Credit will not be granted if credit has been received for: GCD 3022;
Instructor: Simmons,Michael J
Description: Introduction to the nature of genetic information, its transmission from parents to offspring, its expression in cells and organisms, and its course in populations. The course is intended for majors in biology and related disciplines.

Grading: 90% Lecture, 10% Discussion.

Grading: Based on exams and short papers: weighting for the exams and papers will be announced in class.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
BIOL 4003 Genetics
3 credit(s); prereq [BIOC 3021 or BIOC 4331], [any CBS major or major in [animal science or applied plant science or BA biology or BA microbiology or nutrition or physiology or biology/society/environment]] or instr consent ; Credit will not be granted if credit has been received for: GCD 3022;
Instructor: Brooker, Robert James
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a student group. Visit “Class URL” for ODL policies, fee, and financial aid restrictions. This course is intended to provide you with a broad understanding of genetics. In the first part of the course you will explore the structure, replication, and expression of the genetic material known as deoxyribonucleic acid (DNA). As you examine DNA, you will gain an understanding of the molecular structure of DNA and its organization into units called genes. The next part of the course emphasizes inheritance patterns. In it, you will examine many types of inheritance patterns, including simple Mendelian inheritance, extra-chromosomal inheritance, linkage, and the quantitative traits that are determined by multiple genes. The last part of the course examines the genetic technologies that are used to analyze the genetic compositions of species and have applications in our everyday lives. This course ends with a consideration of genetics at the level of populations, and how the genetic compositions of populations evolve over time.
Style: Online with handwritten exams
Grading: 60% mid exam, 30% final exam, 5% quizzes, 5% written homework.
Exam Format: Supervised, in-person (not online) exams

BIOL 4004 Genetics
3 credit(s); prereq [BIOC 3021 or BIOC 4331], [any CBS major or major in [animal science or applied plant science or BA biology or BA microbiology or nutrition or physiology or biology/society/environment]] or instr consent ; Credit will not be granted if credit has been received for: GCD 3022;
Instructor: Glazebrook, Jane
Description: This is a survey course in Genetics that is aimed at junior and senior undergraduates majoring in the biological sciences. For most students who take this class, it is a required course. Other students are most welcome to participate. The course consists of lectures, including some web-based animations illustrating important concepts, and some examples of problem-solving techniques. A basic understanding of probability and biochemistry is essential for successful learning, as is a dedication to solving practice problems. The course begins with classical Mendelian genetics, proceeds through basic molecular genetics, and concludes with recombinant DNA, identification of human disease genes, DNA fingerprinting, and transgenic organisms. The course relies heavily on a textbook: “Principles of Genetics” by Snustad and Simmons, 4th edition. Almost all the figures used in lectures come from the textbook, and students are advised to bring the textbook to each lecture.
Style: 100% Lecture.
Grading: 70% mid exam, 30% final exam.
Exam Format: Multiple choice, short answers and problems

BIOL 4003 Cell Biology
3 credit(s); prereq [3021 or BIOC 3021 or BIOC 4331], [4003 or BIOC 4332];
Instructor: Bramble, Robert Morgan
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit “Class URL” for ODL policies, including fee and financial aid restrictions. This course will provide you with a broad understanding of cell biology. It begins with an overview of techniques to grow, manipulate, and visualize cells. We then consider the composition of cells, the structure of cell membranes, and the movement of substances across membranes. These topics will prepare you to understand how cells convert energy in order to grow and maintain their internal order. Along these lines, you will learn how plants extract solar energy via photosynthesis.
Style: This is a printed correspondence section.
Grading: 40% mid exam, 40% final exam, 20% written homework. 93% or more--A 90-92%--A- 87-89%--B+ 83-86%--B 80-82%--B- 75-79%--C+ 65-74%--C 60-64%--C- 57-59%--D+ 50-56%--D 49% or fewer--F If you take the course on the S/N basis, you must earn the equivalent of a C to receive an S grade.
Exam Format: Supervised, in-person exams

BIOL 4004 Cell Biology
3 credit(s); prereq [3021 or BIOC 3021 or BIOC 4331], [4003 or BIOC 4332];
Instructor: Clarke, Duncan John
Style: 80% Lecture. 25% Discussion.
Grading: 60% mid exam, 20% final exam, 20% quizzes.

BIOL 4004 Cell Biology Lab
3 credit(s); prereq [3021 or BIOC 3021 or BIOC 4331], [4003 or BIOC 4332];
Instructor: Mathes, David J
Description: This course focuses on structures and processes fundamental to cells. We emphasize eukaryotic animal cells. In particular we will discuss molecular and cellular research methods, assembly/function of membranes and organelles, cell division, cell form/movement, intercellular communication, transport, secretion pathways and stem cells & stem cell technology. This course has a strong problem-solving emphasis.
Style: 70% Lecture. 25% Discussion, 5% Guest Speakers.
Grading: 50% mid exam, 25% final exam, 20% class participation, 15% problem solving.
Exam Format: Multiple choice, short answer, essay

BIOL 4035 Mississippi Metagenomics Laboratory
A-F only, 3 credit(s); prereq BIOL 2004 or equiv;
Instructor: Jarvis, Bruce William
Description: Metagenomics is the study of the DNA from all microorganisms present in a given environment. Using modern molecular techniques we can tell what microbes are present and what enzymatic activities they possess. All of this is accomplished without growing the microorganisms, most of which cannot be cultured. This 3 credit course will provide you...
with the opportunity to contribute to research on the microbial populations in the Mississippi River. The basic format of this course will be to meet as a group with a faculty member twice per week and then to work independently in the lab for the rest of the time. Some course activities enable you to address questions concerning microbial diversity by using bioinformatics to study 16S rDNA sequences. In other activities, you would explore the functions of genes from the aquatic microbes. Each of you will play an instrumental role in deciding the project to be undertaken and will be responsible for designing the appropriate experiments.

BIOL 4201 Teaching in the Biology Laboratory
S-N only, 1 credit(s), max credits 2; prereq Student who is teaching in CBS lab course; Instructor: Scott, Cheryl L
Description: Student may contact the instructor or department for information.

BIOL 4201 Teaching in the Biology Laboratory
S-N only, 1 credit(s), max credits 2; prereq Student who is teaching in CBS lab course; Instructor: Cotner, Sehoya H
Description: Student may contact the instructor or department for information.

BIOL 4700 Cell Physiology
A-F only, 3 credit(s); prereq 3211 or PHSL 3051 or PHSL 3061; CHEM 1022, MATH 1272, [PHYS 1202W or equiv] recommended; Instructor: Palmer, Melissa L
Description: Style: 90% Lecture, 5% Discussion, 5% Small Group Activities. Grading: 30% final exam, 60% additional semester exams, 10% class participation.

BIOL 4950 Special Topics in Biology
1-4 credit(s), max credits 4, 1 completion allowed; Instructor: STAFF
Description: Student may contact the instructor or department for information.

BIOL 4994 Directed Research
S-N only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq instr consent, dept consent; Instructor: Aparicio PhD, Conrad
Description: Student may contact the instructor or department for information.

BIOL 5407 Ecology
3 credit(s); prereq One semester college biology, [MATH 1142 or MATH 1271 or MATH 1281 or equiv], grad student or instr consent; Credit will not be granted if credit has been received for: EEB 3001; Instructor: Tilman, David
Description: Biology 3407 is presented as a series of lectures, discussion sections, and laboratory exercises. The goal of this course is to help you explore: the scientific principles, concepts and theories that are the foundation of ecology; how these are applied to major societal and scientific issues, including those related to human impacts on the functioning, productivity and sustainability of ecosystems at a global scale; and the process of scientific creativity, including hypothesis generation, the design of experiments and observation, critical evaluation of data, the inferences that can be drawn from data, and the implications of these inferences. Laboratory and discussion sections will be led by a teaching assistant (TA) from the Ecology Graduate Program. These sections will illustrate, amplify and explain ecological concepts. Your laboratory experience will include completion of an independent research project. Lecture material, assigned readings from the text, and the scientific papers discussed in both lecture and laboratory form the basis of all examination questions. If you are enrolled in Biol 5407 (for which you must be a graduate student), you must complete all the requirements of Biol 3407 as well as write an extra 20-page term paper.

BIOL 5409 Evolution
3 credit(s); prereq One semester of college biology, grad student; Credit will not be granted if credit has been received for: BIOL 3408; Instructor: Zink, Robert Martin
Description: This course presents an overview of the biology of evolutionary change. After a brief review of the history of thought in evolutionary biology, genetic mechanisms of evolution change are presented, including mutation and recombination, natural selection and genetic drift. Population genetics and molecular evolution are explored in depth. Examples of macroevolution are presented including adaptation by natural selection, sexual selection, speciation, species concepts and extinction. Human health is used to illustrate the adaptive ability of microorganisms, and we also touch on the evolution of aging.

BIOL 6793 Directed Studies
1-7 credit(s), max credits 7, 7 completions allowed; prereq MBS, 7 cr max, instr consent; Instructor: Fuchs, James A
Description: Student may contact the instructor or department for information.

BIOL 6794 Directed Research
S-N only, 1-7 credit(s), max credits 7, 1 completion allowed; prereq MBS, instr consent; Instructor: Fuchs, James A
Description: Student may contact the instructor or department for information.

BIOL 6999 Capstone Project
S-N only, 2 credit(s); prereq MBS, instr consent; Instructor: Fuchs, James A
Description: Student may contact the instructor or department for information.

Biomedical Engineering
7-105 Nils Hasselmo Hall

BMEN 1601 Biomedical Engineering Undergraduate Seminar I
1 credit(s); prereq credit will not be granted if credit already received for: BMEn 2601; Instructor: Tranquillo PhD, Robert T
Description: Student may contact the instructor or department for information.

BMEN 2401 Programming for Biomedical Engineers
A-F only, 2 credit(s); prereq Math 1272, Phys 1302; Instructor: Beck, Rich J
Description: Student may contact the instructor or department for information.

BMEN 2501 Cellular and Molecular Biology for Biomedical Engineers
A-F only, 4 credit(s); prereq Concurrent registration is required (or allowed) in CHEM 1022, Concurrent registration is required (or allowed) in MATH 1372, Concurrent registration is required (or allowed) in PHYS 1302; Instructor: Sachs, Jonathan Nathaniel
Description: Tremendous advances in cellular and molecular biology over the last few decades have advanced the frontiers of medicine and biotechnology. Understanding the basic concepts of how cells and their molecules work is now an important tool for biomedical engineers and a new avenue for advancing medicine through technology. To use this tool requires not only an understanding of the fundamentals of cellular and molecular biology, but also the ability to relate these fundamentals to the physical sciences and mathematics. In doing so engineers can better understand, manipulate, and control cellular and molecular systems for therapy and technology.
Grading: 20% final exam, 10% reports/papers, 40% quizzes, 30% additional semester exams.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
BMEN 3001 Biomechanics  
A-F only, 4 credit(s); prereq MATH 2374, PHYS 1302, [BME upper div or dept consent];  
Instructor: Heiskanen, Todd  
Description: Student may contact the instructor or department for information.

BMEN 3201 Bioelectricity and Bioinstrumentation  
A-F only, 4 credit(s); prereq [MATH 2263 or MATH 2374], PHYS 1302, [BME upper div or dept consent];  
Instructor: Akkin Tamer  
Description: Objective: To learn the principles of electrical phenomena and instrumentation relevant to biomedical engineering.  
Style: 60% Lecture, 20% Discussion, 20% Laboratory.  
APPROXIMATE midterm exam dates are October 8, November 8, December 8, 2010.  
Grading: 45% mid exam, 25% final exam, 15% written homework, 15% laboratory evaluation.  
Exam Format: Closed book, closed notes. A crib-sheet (US Letter measuring 8.5 by 11, both sides) is allowed in Final Exam.

BMEN 4001W Biomedical Engineering Design I  
A-F only, 3 credit(s); prereq 2501, 3001, 3101, 3201, 3301, 3701; Meets CLEQ req of Writing Intensive;  
Instructor: Ashkenazi, Shai  
Description: This is the first course in a two-course series in design. The goal of this sequence is to develop design skills through the completion of a biomedical engineering design project. Through course lectures and exercises involving the design process, students will be exposed to all aspects of designing a new product from concept identification to building a working prototype. The projects are open-ended without a single "unique" solution. The student is supposed to learn the methodology of design. The course will amplify creativity through the group process. The course also trains students on determining consumer need. The writing portion of the course will enhance technical communication skills.

BMEN 4710 Directed Research  
A-F only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq instr consent, dept consent;  
Instructor: Odde, David John  
Description: Student may contact the instructor or department for information.

BMEN 4720 Directed Study  
A-F only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq instr consent, dept consent;  
Instructor: Odde, David John  
Description: Student may contact the instructor or department for information.

BMEN 4896 Industrial Assignment I: Co-op Program  
A-F only, 2 credit(s); prereq BMEN upper div, completion of required courses in BMEN prog through spring sem of 3rd yr, registered in co-op prog;  
Instructor: Odde, David John  
Description: Student may contact the instructor or department for information.

BMEN 5001 Advanced Biomaterials  
A-F only, 3 credit(s); prereq 3301 or MATS 3011 or grad student or instr consent;  
Instructor: Wang, Chun  
Description: 1) An overview of the types of modern biomaterials and their applications 2) Understand biomaterial selection, design, and structure-function relationships 3) Understand the concept and evaluation of biocompatibility 4) Develop analytical and critical-thinking skills for the evaluation of research literature  
Grading: 20% mid exam, 30% final exam, 20% reports/papers, 20% written homework, 10% class participation.

BMEN 5041 Tissue Engineering  
3 credit(s); prereq CSE upper div or grad student or med student or instr consent;  
Instructor: Shen, Wei  
Description: Quantitative cell and tissue biology; characterization of tissues; engineering fundamentals; along with a discussion of engineered tissues presently in development or clinical use.  
Grading: 25% mid exam, 30% final exam, 15% reports/papers, 15% written homework, 5% class participation, 10% problem solving.

BMEN 5201 Advanced Biomechanics  
3 credit(s); prereq [[3001 or equiv]] [CSE upper div or grad student] or instr consent;  
Instructor: Barocas, Victor Howard  
Description: Student may contact the instructor or department for information.

BMEN 5351 Cell Engineering  
3 credit(s); prereq [2501 or 5501], CSCI 1107, [MATH 2243 or MATH 2373], [CSEUpper div or grad student or instr consent];  
Instructor: Odde, David John  
Description: Many of the innovations that are occurring in medicine are based on advances in our understanding of fundamental cellular and molecular processes. ?Cell Engineering? is the attempt to understand cellular and molecular processes in a quantitative and physically fundamental way, so that ultimately the behavior of cells can be controlled. The subject is sufficiently new that there is not an accepted textbook in the area. Therefore, I have chosen four topics for study this term. Many other areas were also considered, however in one semester it would not be possible to have much depth in any one area if many topics were included. The course will not cover electrophysiology, as it is covered in other university courses. Instead the focus will be on processes that are principally chemical and mechanical in nature. Neither will the course cover basic cell biology. The main approach will be to review original research papers from the literature to understand the motivation for the work, the approaches taken, the results gained, and their significance. The main goal of the course is to develop the ability to analyze cellular processes using a quantitative, physically based approach. In particular, students will be taught how to develop mathematical and computational models for cellular processes based on the fundamental physics and chemistry of the relevant molecular components.  
Grading: 25% special projects, 50% quizzes, 20% written homework, 5% class participation.

BMEN 5411 Neural Engineering  
3 credit(s); prereq 3401 recommended;  
Instructor: Netoff, Tay Ivan  
Description: This course explores the fundamental theoretical basis for neural engineering in the context of past, present, and future applications. The course begins with an introduction to neuroanatomy and neurophysiology assuming students taking the course have little experience in neuroscience. Homework problems will be predominately building models of neurons and measuring their response to stimulation. The theoretical topics will be taught to develop a deeper understanding and practical knowledge of neural engineering applications. The applications to be studied are arranged by technological maturity. Classical neural engineering subjects include electrode design, neural modeling, cochlear implants, and deep brain stimulation. Developing applications include prosthetic limbs, micturition control, and prosthetic vision. Future applications will cover brain machine interface, seizure prediction, optical imaging of the nervous system and place cell recordings in hippocampus. Students will also explore other advanced topics in their own 20 minute presentations at the end of the course.  
Style: 70% Lecture, 20% Student Presentation, 10% Guest Speakers  
Grading: 20% mid exam, 20% final exam, 20% written homework, 30% in-class presentation, 10% class participation.  
BMEN 5501 Biology for Biomedical Engineers
- 3 credit(s); prereq Engineering upper div or grad student;
- Instructor: Sachs, Jonathan Nathaniel
- Description: Tremendous advances in cellular and molecular biology over the last few decades have advanced the frontiers of medicine and biotechnology. Understanding the basic concepts of how cells and their molecules work is now an important tool for biomedical engineers and a new avenue for advancing medicine through technology. To use this tool requires not only an understanding of the fundamentals of cellular and molecular biology, but also the ability to relate these fundamentals to the physical sciences and mathematics. In doing so engineers can better understand, manipulate, and control cellular and molecular systems for therapy and technology.
- Grading: 20% special projects, 80% quizzes.

BMEN 8101 Biomedical Digital Signal Processing
- A-F only, 3 credit(s); prereq [MATH 2243 or MATH 2373], [MATH 2263 or MATH 2374] or equiv;
- Instructor: Lim, Hubert Hyungil
- Description: Student may contact the instructor or department for information.

BMEN 8401 New Product Design and Business Development
- A-F only, 4 credit(s); prereq [CSE grad student or CSOM grad student], some design experience; 8401, 8402 must be taken same yr; Credit will not be granted if credit has been received for: ME 8221;
- Instructor: Durfee, William K
- Description: See the course web site for a complete description.

BMEN 8501 Nonlinear Dynamics in Electrophysiology
- A-F only, 3 credit(s); prereq Grad student in [engineering or physics or math or physiology or neuroscience];
- Instructor: Takachova, Alena
- Style: 75% Lecture, 20% Student Presentation, 5% Guest Speakers.
- Grading: 30% additional semester exams, 30% in-class presentation, 10% class participation, 30% problem solving.
- Exam Format: Approximate dates for exams: October 21 and December 9. Subject to change.

BMEN 8601 Biomedical Engineering Seminar
- S-N only, 1 credit(s);
- Instructor: Barocas, Victor Howard
- Description: Student may contact the instructor or department for information.

BMEN 8710 Directed Research
- 1-3 credit(s), max credits 3; 1 completion allowed;
- Instructor: Barocas, Victor Howard
- Description: Student may contact the instructor or department for information.

BMEN 8720 Internship in Biomedical Engineering
- S-N only, 1-3 credit(s), max credits 6; prereq Grad BMEn major;
- Instructor: Barocas, Victor Howard
- Description: Student may contact the instructor or department for information.

BMEN 8820 Plan B Project
- 2-3 credit(s), max credits 3, 1 completion allowed; prereq 8201, 8202 must be taken same yr; Credit will not be granted if credit has been received for: ME 8221;
- Instructor: Barocas, Victor Howard
- Description: Student may contact the instructor or department for information.

BMEN 8910 Independent Study
- 1-3 credit(s), max credits 3, 1 completion allowed; prereq Grad BMEn major;
- Instructor: Barocas, Victor Howard
- Description: Student may contact the instructor or department for information.

Biomedical Informatics and Computational Biology

BICB 8510 Computation and Biology
- A-F only, 2 credit(s), max credits 4; prereq BICB grad student or instr consent;
- Instructor: Neuhauser, Claudia
- Description: Student may contact the instructor or department for information.

BICB 8920 BICB Colloquium
- S-N only, 1 credit(s), max credits 2; prereq BICB grad student;
- Instructor: Neuhauser, Claudia
- Description: Student may contact the instructor or department for information.

BICB 8930 BICB Journal Club
- S-N only, 1 credit(s), max credits 4, 4 completions allowed; prereq BICB grad student or instr consent;
- Instructor: Neuhauser, Claudia
- Description: Student may contact the instructor or department for information.

BICB 8940 Education and Pedagogy Seminar
- S-N only, 1 credit(s), max credits 4, 4 completions allowed; prereq BICB grad student or instr consent;
- Instructor: Neuhauser, Claudia
- Description: Student may contact the instructor or department for information.

BICB 8991 Independent Study
- S-N only, 1-2 credit(s), max credits 4; prereq BICB grad major;
- Instructor: Neuhauser, Claudia
- Description: Student may contact the instructor or department for information.

Biophysical Sciences

B272 Mayo Memorial Building

BPHY 5138 Research Seminar
- S-N only, 1-5 credit(s), max credits 5, 1 completion allowed;
- Instructor: Ritenour, Russell
- Description: Student may contact the instructor or department for information.
BBE 1001 Bioproducts and Biosystems Engineering
Orientation
S-N only, 1 credit(s);
Instructor: Seavey, Robert Thomas
Description: Introduction to programs in the department including bioproducts and biosystems engineering, bioproducts marketing and management, residential building science and technology, and corporate environmental management. Orientation to the programs including curriculum, intern, undergraduate research, and honors opportunities. Guest speakers include faculty, alumni, and other professionals related to the program areas. Class time includes a mix of common topics and breakout sessions focused on the various programs. Several field trips or retreat experiences are included.
Style: 50% Lecture, 30% Discussion. Field trips and retreats
Grading: 20% reports/papers, 50% class participation, 30% other evaluation. Participation in field trips and retreats

BEE 1006W Freshman Seminar: Sustainable Housing:
Community, Technology and Env
3 credit(s); prerequisite Fr; Meets CLE req of Environment; meets CLE req of Writing Intensive;
Instructor: Seavey, Robert Thomas
Description: Student may contact the instructor or department for information.

BEE 2201 Renewable Energy and the Environment
3 credit(s); Meets CLE req of Technology and Society;
Instructor: Huelskamp, Richard James
Description: Course Title: Renewable Energy and the Environment Course Objective: This course is designed to provide an overview of society’s diverse choice of renewable energy technologies. An interdisciplinary observation of their potentials, challenges, and opportunities will result. Understanding the environmental, technical, and economic implications of each of the renewable energy opportunities will provide the student the ability to make informed personal, career, and public decisions for today’s global world. Grading Basis: A-F or S/N Prerequisites: None Class Schedule: 2 lectures per week Tuesdays and Thursdays; some field trips Course Outcomes: As a result of participating in this course, the student will be able to: 1. Identify and describe the present energy use, trends, and impacts. 2. Analyze the existing energy practices to determine what level of energy efficiency and shift in energy resources is necessary. 3. Understand the economic impact and the financial resources needed to use renewable energy technologies. 4. Identify and describe the variety, quantity, and environmental impacts of renewable energy resources. 5. Understand the basic design(s) of renewable energy conversion technologies. 6. Realize the economic and environmental impacts of a renewable energy industry and consider the job opportunities that are and will exist. Topics: Energy use: Where are we now? Non-Renewable Fuels Quantity of transportation, heating, and electricity production fuels used. Environmental impacts as a result of energy use today The economics of using energy resources. Jobs and economic development. Environmental costs of using energy resources. Renewable energy resources Solar Wind Biomass Geothermal Hydro (rivers and oceans) Quantity and availability of renewable energy resources. The promises and problems of solar, wind, biomass, geothermal and hydro energy resources. Comparison of the quantity and availability of renewable energy resources to non-renewable energy resources. Conversion technologies to provide heat, electricity and transportation Non-renewable energy conversion technologies. Renewable energy conversion technologies. Solar?thermal and photovoltaic Wind?small and large Electric generation Biomass?treatment of organic wastes to energy Geothermal?availability of geothermal energy resources, economic issues Hydro?rivers and oceans Environmental issues of renewable energy use. The energy cost savings The renewable energy industry job growth The financial industry growth due to renewable energy products. Student Performance Assessment: Homework & Projects - 50%, mid term exam - 25%, Exams - 25% Prepared by: Rich Huelskamp and Shri Ramaswamy Date: February 14, 2008

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
components, including trusses, beams, and columns. Using conventional lumber products, engineered wood products, and steel. Lab.

BBE 3002 Introduction to Engineering Design
A-F only, 3 credit(s); prereq [MATH 1271 or MATH 1371, CHEM 1021, BBE lower div (soph) or upper div (jr), freshman writing req] or instr consent;
Instructor: Nieber, John Little
Description: Student may contact the instructor or department for information.

BBE 3002 Introduction to Engineering Design
A-F only, 3 credit(s); prereq [MATH 1271 or MATH 1371, CHEM 1021, BBE lower div (soph) or upper div (jr), freshman writing req] or instr consent;
Instructor: Nieber, John Little
Description: Student may contact the instructor or department for information.

BBE 3013 Engineering Principles of Molecular and Cellular Processes
A-F only, 3 credit(s); prereq BIOL 1009, [Chem 1022 or Concurrent registration is required (or allowed) in Chem 1022], Math 1272;
Instructor: Bhattacharya, Mrinal
Description: Introduction to applied engineering principles in biological processes, classification of microbes of industrial importance, parameters important for cellular control, modeling of cell growth and metabolism, enzymatic catalysis, bioreactor design, product recovery operations design and case studies. Course objectives/outcomes: Students will: 1) Become familiar with topics in current industrial microbiology. 2) Understand cell growth and metabolism. 3) Gain an understanding of parameters involved in bioreactor design. 4) Gain an understanding of various downstream separation processes. 5) Participate in laboratory course.
Style: 60% Lecture, 10% Discussion, 30% Laboratory.
Grading: 20% final exam, 20% special projects, 20% quizzes, 20% laboratory evaluation, 20% problem solving.
Exam Format: Essay

BBE 3023 Ecological Engineering Principles
3 credit(s); prereq BIOL 1009, [CHEM 3502 or Concurrent registration is required (or allowed) in CE 3502] or instr consent;
Instructor: Clanton, Chuck
Style: 60% Lecture, 15% Discussion, 25% Laboratory.
Grading: 40% final exam, 15% reports/papers, 30% quizzes, 15% laboratory evaluation.
Exam Format: Problems, short answer

BBE 3023 Ecological Engineering Principles
3 credit(s); prereq BIOL 1009, [CE 3502 or Concurrent registration is required (or allowed) in CE 3502] or instr consent;
Instructor: Clanton, Chuck
Description: Student may contact the instructor or department for information.

BBE 3093 Directed Studies
1-5 credit(s), max credits 5, 1 completion allowed; prereq instr consent;
Instructor: STAFF
Description: Independent study of topic(s) involving physical principles as applied to agricultural production and land resources. Contact the department for information.

BBE 3101 Introductory Statics and Structures for Construction Management
A-F only, 3 credit(s); prereq Working knowledge of [trigonometry, geometry, algebra];
Instructor: STAFF
Description: Statics, engineering wood design principles, mechanical properties of wood. Design techniques for individual components. Trusses, beams, columns. Using conventional lumber products, engineered wood products, and steel. Simple structures explored through examples, assignments.

BBE 3393 Directed Study
1-3 credit(s), max credits 12, 4 completions allowed; prereq instr consent;
Instructor: STAFF
Description: Opportunity to pursue experience not available through independent study or extra credit. In consultation with an advisor students develop a prospectus and complete progress reports and a final report on the project.

BBE 3396 Industrial Internship (Industrial Assignment)
A-F only, 1 credit(s); prereq BBE cooperative ed student;
Instructor: STAFF
Description: Industrial work assignment in forest products cooperative education programs. Evaluation based on formal report written by student at end of each semester of work assignment.

BBE 3503 Marketing of Bio-based Products
A-F only, 4 credit(s); Credit will not be granted if credit has been received for: BBE 5503;
Instructor: Smith, Tim
Description: Student may contact the instructor or department for information.

BBE 4001 Chemistry of Plant Materials
A-F only, 4 credit(s); prereq CHEM 2301, [jr or sr or instr consent ]; Credit will not be granted if credit has been received for: BBE 5001;
Instructor: Tscharner, Ulrike Waltrau
Description: The first half of this course is focused on fundamentals such as the chemical composition of plant materials and typical reactions. The topics covered include: Carbohydrate Chemistry, Cellulose, Hemicellulose, Lignin, distribution of chemical components in plant material, Extractives and Oils, Starch, Proteins including Enzymes, Alkaloids. The second part of this class is focused on chemical reactions involved in conversion of biomass to industrial products; it includes the new emerging field of biomass conversion to Bioenergy and Bioproduts and traditional processes such as production of rayon or papermaking fiber. Examples of chemical reactions involved in biorefining include: conversion of cellulose and hemicellulose to ethanol, furfural, PLA (Polyactic acid); conversion of oil to biodiesel; gasification of biomass followed by Fisher Tropsch conversion to fuels.
Style: 70% Lecture, 30% Discussion.
Grading: 30% final exam, 40% quizzes, 25% written homework, 5% class participation. Based on 6 quizzes, 6 homeworks, final exam

BBE 4023W Process Control and Instrumentation
A-F only, 3 credit(s); prereq Upper div CSE or grad student; Credit will not be granted if credit has been received for: BBE 5023; Meets CLE req of Writing Intensive;
Instructor: Janni, Kevin A
Description:
BBE 4403 Bio-based Products Engineering Lab II
A-F only, 1 credit(s); prereq CHEM 2301, [jr or sr or instr consent ]; Credit will not be granted if credit has been received for: BBE 5403;
Instructor: Hu, Bo
Description: Engineering principles as they apply to bio-based products; hands-on lab experiments including: chemical reaction kinetics, mass and energy balance during pulping, cellulose viscosity measurement, recycling of paper, flow through porous media (paper), liquid permeability, sizing test, drying (heat and mass transfer), production of composites product.
Style: 10% Lecture, 90% Laboratory.
Grading: 100% other evaluation. Based on work sheets, participation including team performance, open book final exam

BBE 4404 Bio-based Composites Engineering
A-F only, 3 credit(s); prereq 3001, Chem 3501, [jr or sr or instr consent ]; Credit will not be granted if credit has been received for: BBE 5404;
Instructor: Tze, William Tai Yin
Description: The class provides students with a fundamental understanding of the engineering of bio-based composites and the properties of the composite materials. Students will learn about the use of renewable bio-based resources for composites, including adhesive-bonded laminated veneer composites (e.g. plywood), thermally consolidated particle composites (e.g. strandboard and particleboard), thermoplastic matrix composites (e.g. wood-plastic composites), and bio-nanocomposites.
Style: 85% Lecture, 15% Laboratory.
Grading: 15% special projects, 6% written homework, 20% problem solving. Three exams -- 20% each.
Exam Format: Short answers and calculations.

BBE 4405 Pulp and Paper Technology
3 credit(s); prereq Jr or instr consent ;
Instructor: Tschirner, Ulrike Waltrau
Description: Student may contact the instructor or department for information.

BBE 4401 Bioproducts Engineering
A-F only, 3 credit(s); prereq [3033, CE 3502, UD] or instr consent ;
Instructor: Ramaswamy, Shri
Description: Basic principles of unit operations and their applications to bio-based products manufacturing - chemical reaction engineering, solid-liquid separation processes, solid-solid separation processes, evaporation, distillation, combustion, gasification, drying, etc. Applying unit operations and material properties to design processes and to manufacture conventional and emerging bio-based products including biofuels, bioenergy, and bio-plastics.

BBE 4403 Bio-based Products Engineering Lab II
A-F only, 1 credit(s); prereq CHEM 2301, [jr or sr or instr consent ]; Credit will not be granted if credit has been received for: BBE 5403;
Instructor: Tschirner, Ulrike Waltrau
Description: Engineering principles as they apply to bio-based products; hands-on lab experiments including: chemical reaction kinetics, mass and energy balance during pulping, cellulose viscosity measurement, recycling of paper, flow through porous media (paper), liquid permeability, sizing test, drying (heat and mass transfer), production of composites product.
Style: 10% Lecture, 90% Laboratory.
Grading: 100% other evaluation. Based on work sheets, participation including team performance, open book final exam

BBE 4407 Bioproducts: Manufacturing and Applications
3 credit(s); prereq 1002 or instr consent ; Credit will not be granted if credit has been received for: BBE 5407;
Instructor: Seavey, Robert Thomas
Description:

BBE 4414 Advanced Residential Building Science
3 credit(s); prereq 3001 or WPS 4301;
Instructor: Huelman, Patrick Henry
Description: This course is intended to be an advanced course. Students are expected to be fully prepared and engaged in the content and its application. Approximately 80% of the course will be heavily structured to cover the critical content, but some time will be left for discussion. The course will give the student an excellent grasp of the key building science principles and the ability to put these principles to work in both a qualitative and quantitative manner to resolve common energy, moisture, and indoor air quality issues in residential buildings.
Style: 80% Lecture, 15% Discussion, 5% Student Presentation.
Grading: 60% mid exam, 15% written homework, 25% in-class presentation. Grades based off of percentages
Exam Format: Short answers and problems

BBE 4415 Advanced Residential Building Science Lab
A-F only, 1 credit(s); prereq [3001, 4302, 4413W] or instr consent ) or [WPS 4301, 4303, 4333] or instr consent , [4414 or WPS 4334]; Credit will not be granted if credit has been received for: BBE 5415;
Instructor: Seavey, Robert Thomas
Description: Student may contact the instructor or department for information.

BBE 4491 Senior Topics: Independent Study
1-4 credit(s), max credits 4, 1 completion allowed; prereq sr, instr consent ;
Instructor: STAFF
Description: Independent study in an area of interest to an undergraduate majoring in one of the fields within the College of Food, Agricultural and Natural Resource Sciences.

BBE 4535 Assessment and Diagnosis of Impaired Waters
A-F only, 3 credit(s); prereq Upper division CSE or CFANS or CBS student or instr consent ; Credit will not be granted if credit has been received for: BBE 5535;
BBE 4744 Engineering Principles for Biological Scientists
A-F only, 4 credit(s); prereq [Math 1142 or Math 1271], Phys 1101; intended for non engineering students; Credit will not be granted if credit has been received for: FSCN 4331;
Instructor: Morey, R Vance
Description: Intended for food and biological sciences students who are interested in understanding engineering principles applied to selected unit operations. Not intended for engineering students. Material and energy balances applied to processing systems. Principles of fluid flow, thermodynamics, heat and mass transfer applied to food and bioprocess unit operations such as pumping, heat exchange, refrigeration and freezing, drying, evaporation, and separation.
Style: 60% Lecture, 15% Discussion, 25% Laboratory.
Grading: 30% mid exam, 20% final exam, 10% quizzes, 25% laboratory evaluation, 15% problem solving.
Exam Format: Problems to work.

BBE 4744 Engineering Principles for Biological Scientists
A-F only, 4 credit(s); prereq [Math 1142 or Math 1271], Phys 1101; intended for non engineering students; Credit will not be granted if credit has been received for: FSCN 4331;
Instructor: Smith, David Eugene
Description: Student may contact the instructor or department for information.

BBE 4801H Honors Research
A-F only, 2 credit(s); prereq BP upper div honors;
Instructor: STAFF
Description: First semester of independent research project supervised by faculty member.

BBE 4900 Intern Reports
S-N only, 2 credit(s), max credits 4; prereq CSE or COAFES student in BAE, instr consent;
Instructor: Janni, Kevin A
Description: Student exposure to engineering practice through an intern program. Periodic reports on work assignments are reviewed by faculty and coordinated with industry advisors.

BBE 5001 Chemistry of Plant Materials
A-F only, 4 credit(s); prereq Grad student or instr consent;
Credit will not be granted if credit has been received for: BBE 4001;
Instructor: Tschirner, Ulrike Waltrau
Description: Chemistry of cellulose, hemicellulose, lignin, extractives, proteins and other plant materials. About half of course focused on fundamentals, including building blocks of these natural polymers and typical reactions. Remaining course focuses on applications related to these materials (chemicals from biomass, cellulosic ethanol, biodiesel, biodegradable plastics, rayon, papermaking fibers, etc.)
Style: 70% Lecture, 30% Discussion.
Grading: 100% other evaluation. Based on 6 quizzes, 6 homeworks, final exam

BBE 5023 Process Control and Instrumentation
3 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: BBE 4023W;
Instructor: Janni, Kevin A
Description: Instrumentation and control equipment and systems for monitoring and studying biological systems. Course objectives are: 1) Introduce students to instrumentation terminology, performance characteristics, uncertainty analysis, calibration and data acquisition; 2) Have students simplify dynamic problems and perform analysis in the S-domain using Laplace Transforms, generate model transfer functions and classify the dynamic behavior of closed-loop process systems based on their time-domain, transfer function, and frequency-domain representations; 3) Introduce students to open-loop and closed-loop control terminology, principles and equipment; 4) Introduce students to Proportional-Integral-Derivative (PID) controllers; 5) Have students analyze control system stability and performance; 6) Have students understand practical control issues and the benefits of control engineering for improving operations, safety, and environmental compliance; 7) Introduce students to sensors and instruments to measure motion, pressure, strain and temperature; 8) Have students become familiar with the principles of sensors used in the measurement of mechanical, physical and chemical parameters; 9) Have students become familiar with PC-based data acquisition equipment and its use; 10) Have students integrate their instrumentation and process control knowledge in a comprehensive written design report that explains and recommends an instrumentation and process control system.
Style: 60% Lecture, 10% Discussion, 30% Laboratory.
Grading: 20% mid exam, 10% final exam, 35% reports/papers, 15% laboratory evaluation, 20% problem solving.
Exam Format: Matching, short problems, short answer

BBE 5095 Special Problems
1-5 credit(s), max credits 5, 1 completion allowed; prereq instr consent;
Instructor: STAFF
Description: Advanced individual-study project. Application of engineering principles to specific problem. Student may contact the instructor or department for information.

BBE 5401 Bioproduts Engineering
A-F only, 3 credit(s); prereq Grad student or instr consent;
Instructor: Ramaswamy, Shri
Description: Basic principles of unit operations and their applications to bio-based products manufacturing - chemical reaction engineering, solid-liquid separation processes, solid-solid separation processes, evaporation, distillation, combustion, gasification, drying, etc. Applying unit operations and material properties to design processes and to manufacture conventional and emerging bio-based products including biofuels, bioenergy, and bio-plastics.

BBE 5403 Bio-based Products Engineering Lab II
A-F only, 1 credit(s); prereq Grad student or instr consent;
Credit will not be granted if credit has been received for: BBE 4403;
Instructor: Tschirner, Ulrike Waltrau
Description: Engineering principles as they apply to bio-based products; hands-on lab experiments including: chemical reaction kinetics, mass and energy balance during pulping, cellulose viscosity measurement, recycling of paper, flow through porous media (paper), liquid permeability, sizing test, drying (heat and mass transfer), production of composites product.
Style: 10% Lecture, 90% Laboratory.
Grading: 100% other evaluation. Based on work sheets, participation including team performance, open book final exam

BBE 5403 Bio-based Products Engineering Lab II
A-F only, 1 credit(s); prereq Grad student or instr consent;
Credit will not be granted if credit has been received for: BBE 4403;
Instructor: Hu, Bo
Description: Engineering principles as they apply to bio-based products; hands-on lab experiments including: chemical reaction kinetics, mass and energy balance during pulping, cellulose viscosity measurement, recycling of paper, flow through porous media (paper), liquid permeability, sizing test, drying (heat and mass transfer), production of composites product.
Style: 10% Lecture, 90% Laboratory.
Grading: 100% other evaluation. Based on work sheets, participation including team performance, open book final exam

BBE 5404 Bio-based Composites Engineering
A-F only, 3 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: BBE 4404;
Instructor: Tze, William Tai Yin
Description: The class provides students with a fundamental understanding of the engineering of bio-based composites and the properties of the composite materials. Students will learn about the use of renewable bio-based resources for composites, including adhesive-bonded laminated veneer composites (e.g., plywood), thermally consolidated particle composites (e.g., strandboard and particleboard), thermoplastic matrix composites (e.g., wood-plastic composites), and bio-nanocomposites. Students will learn the design and processing aspects of bio-based composites by taking into consideration the unique structure and material properties of wood and biofibers. Using principles of polymer science, mechanics, and adhesion, students will learn to engineer and predict properties of various bio-based composites.
Style: 85% Lecture, 15% Laboratory.
Grading: 15% special projects, 5% written homework, 20% problem solving. Three exams -- 20% each.
Exam Format: Short answers and calculations.
BBE 5407 Bioproducts: Manufacturing and Applications
3 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: BBE 4407;
Instructor: Seavey, Robert Thomas
Description: 

BBE 5414 Advanced Residential Building Science
3 credit(s); prereq Grad student or instr consent; Instructor: Huelman, Patrick Henry
Description: Student may contact the instructor or department for information.

BBE 5415 Advanced Residential Building Science Lab
A-F only, 1 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: BBE 4415;
Instructor: Seavey, Robert Thomas
Description: Student may contact the instructor or department for information.

BBE 5503 Marketing of Bio-based Products
A-F only, 4 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: BBE 3503;
Instructor: Smith, Tim
Description: Student may contact the instructor or department for information.

BBE 5513 Watershed Engineering
A-F only, 3 credit(s); prereq 3023, upper div CSE;
Instructor: Wilson, Bruce Nord
Description: Application of engineering principles to managing surface runoff from agricultural, range, and urban watersheds. Design of facilities and selection of land use practices for controlling surface runoff to mitigate problems of flooding and degradation of surface-water quality.
Style: 60% Lecture, 20% Laboratory, 15% Small Group Activities, 5% Field Trips.
Grading: 25% mid exam, 35% final exam, 25% special projects, 15% problem solving.

BBE 5513 Watershed Engineering
A-F only, 3 credit(s); prereq 3023, upper div CSE;
Instructor: Wilson, Bruce Nord
Description: Class URL: https://wiki.umn.edu/view/Wilson/WatershedEngineering
Students will apply engineering principles in the management and design of hydrologic and surface water quality systems. Specific objectives are to understand and use: 1) Hydrologic analysis techniques for small watersheds; 2) Design techniques for small reservoirs and detention ponds for reducing peak flow rates and sediment concentrations; 3) Design techniques of surface water conveyance systems.
Style: 60% Lecture, 20% Laboratory, 15% Small Group Activities, 5% Field Trips.
Grading: 25% mid exam, 35% final exam, 25% special projects, 15% written homework.
Exam Format: Open book problems

BBE 5535 Assessment and Diagnosis of Impaired Waters
A-F only, 3 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: BBE 4535;
Instructor: Magner, Joe
Description: Student may contact the instructor or department for information.

BBE 8001 Seminar I
A-F only, 1 credit(s);
Instructor: Sarkaran, Simo
Description: Student may contact the instructor or department for information.

BBE 8013 Parameter Estimation in Biosystems and Agricultural Engineering
A-F only, 3 credit(s); prereq Stat 3021 or equiv, computer programming course;
Instructor: Wilson, Bruce Nord
Description: Student may contact the instructor or department for information.

BBE 8300 Research Problems
1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent;
Instructor: Seavey, Robert Thomas
Description: Student may contact the instructor or department for information.

BBE 8703 Managing Water in Food and Biological Systems
3 credit(s); prereq Chem 3501 or FScN 5451 or MatS 3011 or instr consent;
Instructor: Ruan, R.D.; Roger
Description: Student may contact the instructor or department for information.

Business Administration
2-190 Hanson Hall

BA 999 Immersion Core
A-F only, 12 credit(s); prereq ACCT 2050, OMS 2550, Carlson School [soph or jr];
Instructor: Buchner, Thomas Wayne
Description: Student may contact the instructor or department for information.

BA 1910W Freshman Seminar, WI: Risky Business
A-F only, 3 credit(s), max credits 9, 3 completions allowed; prereq freshman; Meets CLE req of Writing Intensive;
Instructor: Whitman, Andrew Franklin
Description: Student may contact the instructor or department for information.

BA 3000 Career Skills
S-N only, 1 credit(s); prereq CSOM soph or upper div major;
Instructor: Nelson, Elaine W
Description: Student may contact the instructor or department for information.

BA 3000 Career Skills
S-N only, 1 credit(s); prereq CSOM soph or upper div major;
Instructor: Sawyer, Brooke
Description: Required for all Carlson School students, this course focuses on career discovery and tactical preparation for the internship and career searches. In this course you will: 1. Clarify personal interests, values, skills and abilities and learn...
the importance of self-assessment and self-awareness in identifying career options. 2. Develop professional resumes, cover letters and correspondence. 3. Develop a contact network and understand how to engage your network in the career planning process. 4. Understand and utilize professional business etiquette. 5. Research organizations to better prepare for interviews and company interactions, as well as to determine your best organizational “fit”. 6. Interview effectively, with specific emphasis on how to convey your background, skills, career goals and the value you bring to an organization. 7. Access internship, part-time and full-time employment opportunities. 8. Understand employment trends and their effect on career options. 9. Develop an overall career search strategy We advise all students to take this course during the sophomore year, ideally during the fall semester.

BA 3000 Career Skills
S-N only, 1 credit(s); prereq CSOM soph or upper div major;
Instructor: Sullivan, Mackenzie
Description: Required for all Carlson School students, this course focuses on career discovery and tactical preparation for the internship and career searches. In this course you will: 1. Clarify personal interests, values, skills and abilities and learn the importance of self-assessment and self-awareness in identifying career options. 2. Develop professional resumes, cover letters and correspondence. 3. Develop a contact network and understand how to engage your network in the career planning process. 4. Understand and utilize professional business etiquette. 5. Research organizations to better prepare for interviews and company interactions, as well as to determine your best organizational “fit”. 6. Interview effectively, with specific emphasis on how to convey your background, skills, career goals and the value you bring to an organization. 7. Access internship, part-time and full-time employment opportunities. 8. Understand employment trends and their effect on career options. 9. Develop an overall career search strategy We advise all students to take this course during the sophomore year, ideally during the fall semester.

BA 3000 Career Skills
S-N only, 1 credit(s); prereq CSOM soph or upper div major;
Instructor: Beck, Sheri A
Description: Student may contact the instructor or department for information.

BA 3000 Career Skills
S-N only, 1 credit(s); prereq CSOM soph or upper div major;
Instructor: Oehler, Sarah
Description: Student may contact the instructor or department for information.

BA 3999 Internship Seminar
S-N only, 1 credit(s); prereq Approved internship, instr consent;
Instructor: Kinross-Wright, Morgan Elise
Description: Student may contact the instructor or department for information.

BA 4501 Carlson Funds Enterprise: Growth
OPC No Aud, 3 credit(s), max credits 6; prereq Concurrent registration is required (or allowed) in MBA 6501, CSOM [jr or sr], approved application;
Instructor: Barsky III, Joseph M
Description: Student may contact the instructor or department for information.

BA 4502 Carlson Funds Enterprise: Fixed Income
OPC No Aud, 3 credit(s), max credits 6; prereq Concurrent registration is required (or allowed) in MBA 6502, CSOM [jr or sr], approved application;
Instructor: Parr, Jeannette
Description: Student may contact the instructor or department for information.

BA 4503 Carlson Ventures Enterprise
OPC No Aud, 2 credit(s), max credits 6, 3 completions allowed; prereq Concurrent registration is required (or allowed) in MBA 6503, CSOM [jr or sr], approved application;
Instructor: Nord, Tobin Lawrence
Description: Student may contact the instructor or department for information.

BA 4504 Carlson Consulting Enterprise
OPC No Aud, 3 credit(s), max credits 6; prereq Concurrent registration is required (or allowed) in MBA 6504, CSOM [jr or sr], approved application;
Instructor: Hill, PhD, Arthur V
Description: Student may contact the instructor or department for information.

BA 4505 Brands Enterprise
OPC No Aud, 3 credit(s), max credits 6; prereq Concurrent registration is required (or allowed) in MBA 6505, CSOM [jr or sr], approved application;
BA 4990H Honors Thesis Seminar I
A-F only, 2 credit(s); prereq CSOM honors, 2nd sem jr;
Instructor: Rueker, Robert W
Description: Student may contact the instructor or department for information.

BA 4991H Honors Thesis Seminar II
A-F only, 2 credit(s); prereq 4990H, CSOM honors, sr;
Instructor: Manchester, Colleen Flaherty
Description: Student may contact the instructor or department for information.

Business Law
3-110 Carlson School of Management

BLAW 3058 The Law of Contracts and Agency
A-F only, 4 credit(s); prereq 40 or more credits;
Instructor: Kramer, Jack
Description: First third of the course covers contracts and sales using the Socratic method of case analysis, much like a law school approach. Remainder of the course covers the law of warranties, product liability, negotiable instruments, real estate, wills and estates, agency, equal opportunity in employment law, secured transactions, and law relating to public companies and corporate governance.
Grading: 30% final exam, 60% additional semester exams, 10% class participation.
Exam Format: Mostly multiple choice. Also, short answer questions based on law school type hypos.

Business and Industry Education
330 Wulling Hall

BIE 1396 Supervised Career and Technical Education Teaching
S-N only, 4 credit(s); prereq college consent;
Instructor: Stertz EdD, Tom
Description: This course is a supervised teaching experience for beginning on-the-job and pre-service instructors in Career and Technical Education. The course can be used to satisfy the Minnesota Secondary Career and Technical Teacher Licensure requirement. The course is delivered in an individualized mode with the U of M instructor acting as a supervisor and resource person. An on-site career and technical instructor or supervisor will also serve as a mentor. All work agreed upon by the student and the BIE 1396 instructor.

BIE 3001 Teaching Marketing Promotion
A-F only, 3 credit(s);
Instructor: Gaddey Jr, Roy Arthur
Description: Student may contact the instructor or department for information.

BIE 3001 Teaching Marketing Promotion
A-F only, 3 credit(s);
Instructor: Richardson, Tiffany
Description: Student may contact the instructor or department for information.

BIE 3061 Professional Sales Management
A-F only, 3 credit(s);
Instructor: Braden, Richard Allyn
Description: Student may contact the instructor or department for information.

BIE 3624 Sales Training
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: BIE 5624;
Instructor: Cherry, Jennifer E
Description: Student may contact the instructor or department for information.

BIE 3993 Directed Study: BIE
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Stertz EdD, Tom
Description: Student may contact the instructor or department for information.

BIE 4196 Internship: Business and Marketing Education
S-N only, 1-3 credit(s), max credits 3, 1 completion allowed;
prereq 3061, 3624, 4626, sr BME major;
Instructor: Snyder, Lynn M.
Description: Student may contact the instructor or department for information.

BIE 4626 Customer Service Training
A-F only, 3 credit(s);
Instructor: Selander, Julie Ann
Description: Student may contact the instructor or department for information.

BIE 5151 Technical Development: Specialized
A-F only, 1-12 credit(s), max credits 12, 12 completions allowed;
prereq instr consent;
Instructor: Stertz EdD, Tom
Description: Students select and study technical processes and principles based on the particular subject matter areas they plan to teach. Experiences allow students to integrate specialized technical instruction in advanced and emerging areas.

BIE 5452 Methods of Teaching Business and Marketing Concepts
A-F only, 3 credit(s);
Instructor: Horazdovsky PhD, Jerry Edward
Description: Student may contact the instructor or department for information.

BIE 5596 Occupational Experience in Business and Industry
S-N only, 1-10 credit(s), max credits 10, 1 completion allowed;
prereq instr consent;
Instructor: Stertz EdD, Tom
Description: Observation and employment in business and industry to develop technical or occupational competencies; 100 clock hours of supervised work experience per credit.

BIE 5796 Field Based Projects in Business and Industry
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Stertz EdD, Tom
Description: Student may contact the instructor or department for information.
BIE 5993 Directed Study in Business and Industry
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Stertz EdD,Tom
Description: Student may contact the instructor or department for information.

Center for Allied Health Programs
15-194 PWB (MMC 714)

CAHP 5110 Foundations of Interprofessional Communication and Collaboration
S-N only, 1 credit(s); prereq Enrolled CLSP or OT student;
Instructor: Spannau-Martin,Donna J
Description: Student may contact the instructor or department for information.

Center for Learning Innovation

CLI 1711 Introduction to Health Sciences I
S-N only, 1 credit(s); prereq Freshman in Bachelor of Science in Health Sciences (BSHS) Only Rochester-admitted students will be able to enroll in this course.;
Instructor: Fridgen,Michael W
Description: Student may contact the instructor or department for information.

CLI 1711 Introduction to Health Sciences I
S-N only, 1 credit(s); prereq Freshman in Bachelor of Science in Health Sciences (BSHS) Only Rochester-admitted students will be able to enroll in this course.;
Instructor: Tesch,Nathan Keith
Description: Student may contact the instructor or department for information.

CLI 1711 Introduction to Health Sciences I
S-N only, 1 credit(s); prereq Freshman in Bachelor of Science in Health Sciences (BSHS) Only Rochester-admitted students will be able to enroll in this course.;
Instructor: Weber,Kendra A.
Description: Student may contact the instructor or department for information.

CLI 2711 Career Planning I
S-N only, 1 credit(s); prereq soph in Bachelor of Science in Health Sciences (BSHS);
Instructor: Hegland,Jennifer Jean
Description: Student may contact the instructor or department for information.

Center for Spirituality and Healing
Mayo Code 505; C592 Mayo

CSHP 1001 Principles of Holistic Health and Healing
2 credit(s);
Instructor: Brady,Linda J
Description: This course focuses on how individuals and society can work for a balanced life to achieve optimal health with our stressful lifestyles. Topics include: 1. what is health and well being? 2. cultural constructs of health and well being; 3. fundamental principles and proven measures of holistic health that promote health and well being; 4. practical application and integration of holistic health practices into daily personal life. Class will be interactive and students will reflect on the application of the principles to their daily lives; a key component of class is to become more mindful and “present” in our daily lives and then to understand how we can apply this to be more balanced as students in US society. The text will be Integral Healing by Elliott Dacher, 2006; additional readings will be from the CSpH website modules and other websites.
Style: 50% Lecture, 50% Discussion. Most classes will present information and students will discuss/reflect on it in class groups
Grading: 67% reflection paper, 33% class participation. Each assignment will ask students to read information or watch a video and then to answer questions and reflect on the significance of the material and its application to their lives.
Exam Format: No exams

CSPH 1101 Self, Society, and Environment: An Integral Systems Approach to Personal Wellbeing and Engagement
3 credit(s);
Instructor: Brady,Linda J
Description: Students will examine and reflect on the internal and external systems which influence their lives and health using various "ways of knowing" such as science, complexity theory, and other world views. They will examine the interrelated workings of mind and body and explore a variety of means of bringing these into dynamic balance. They will examine the variety of environmental and social systems in which they participate, once again combining theory, experience, and reflection to explore the optimal functioning of these systems, both for individuals and the collective whole. In addition to applying their learning within the realm of personal well-being, students will learn to be social entrepreneurs, bringing health and balance to the social and environmental systems in which they participate.
Style: 25% Lecture, 50% Discussion, 25% Small Group Activities.
Grading: 75% written homework, 15% reflection paper, 10% class participation. Class format will be to prepare written assignments before class, discuss in small and large groups, then submit homework assignments based on both reading and class discussion for the week.
Exam Format: No exams

CSPH 3201 Introduction to Mindfulness-Based Stress Reduction
2 credit(s);
Instructor: Storlie,Erik Fraser
Description: The class will introduce students to a variety of techniques by which the stress endemic in a fast-paced competitive culture can be both reduced, as well as worked with constructively. Students will engage in both experiential and intellectual learning. They will practice and apply techniques of stress-reduction through "mindfulness" - the steady, intentional gathering of a non-judgmental awareness into the present moment in various activities. They will also think critically as they study and evaluate recent medical-scientific literature on the physiological and psychological elements in the stress response.

CSPH 5000 Explorations in Complementary Therapies and Healing Practices: Introduction to Aromatherapy
1 credit(s), max credits 12, 4 completions allowed; prereq Jr or sr or grad student or instr consent;
Instructor: Halcon PhD,Linda Luciente
Description: Student may contact the instructor or department for information.

CSPH 5000 Explorations in Complementary Therapies and Healing Practices: Overview of Indigenous Hawaiian Healing
2 credit(s), max credits 12, 4 completions allowed; prereq Jr or sr or grad student or instr consent;
Instructor: Kreitzer,MaryJo
Description: Student may contact the instructor or department for information.

CSPH 5000 Explorations in Complementary Therapies and Healing Practices: Acupressure in the Healthcare Setting
1 credit(s), max credits 12, 4 completions allowed; prereq Jr or sr or grad student or instr consent;
Instructor: Culliton,Patricia D
Description: Student may contact the instructor or department for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
CSPH 5101 Introduction to Complementary Healing Practices
3 credit(s); prereq Jr or sr or grad student or instr consent;
Instructor: Culliton, Patricia D
Description: Student may contact the instructor or department for information.

CSPH 5102 Art of Healing: Self as Healer
1 credit(s); prereq Jr or sr or grad student or instr consent;
Instructor: Culliton, Patricia D
Description: Student may contact the instructor or department for information.

CSPH 5102 Art of Healing: Self as Healer
1 credit(s); prereq Jr or sr or grad student or instr consent;
Instructor: Gorman, Rebecca Sue
Description: Student may contact the instructor or department for information.

CSPH 5111 Ways of Thinking about Health
S-N only, 2 credit(s), max credits 4; prereq Jr or sr or grad student or instr consent; instructor permission required for second enrollment in course;
Instructor: Hassell, Craig Alan
Description: CSPH 5111 "Ways of Thinking about Health" offers students a rare opportunity to explore diverse cultural contexts through field-trip immersion experiences. In this course, we will explore fundamental aspects of several different health-care systems, including Indigenous North American Medicine, Vedic Medicine, Traditional Chinese Medicine and biomedicine. The field-trip learning serves as a micro-cultural immersion experience for the purpose of helping students to understand different worldviews and systems of knowledge that do not correspond to a scientific model. The course is based upon the idea that thinking about different worldviews and healing systems from a detached, survey perspective is a quite different matter than thinking critically within the system being explored to attain deeper learning. Each field-trip experience will be followed by a writing assignment, where the student will write on a health care issue of their choice, but from within the perspective of the system being studied. This approach is designed to allow each student the maximum opportunity to explore, experience, appreciate and articulate the cultural diversity in ways of thinking about health.
Style: 20% Lecture, 30% Discussion, 50% Field Trips.
Grading: 70% reflection paper, 30% in-class presentation.

CSPH 5211 Peacemaking and Spirituality: A Journey Toward Healing and Strength
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed; prereq Jr or sr or grad student or instr consent;
Instructor: Umbreit, Mark S
Description: This course is designed to provide a basic understanding of the central elements of peacemaking and spirituality in the context of various healthcare and social work settings. Examples include intense interpersonal conflicts between patients/providers, between nurses/social workers, between coworkers; within families and within communities; among friends and within ourselves. This course has 2-credit and 3-credit options. Students in the 3-credit option would go deeper into the subject matter to gain understanding of practices that contribute to peacemaking and spirituality that are grounded in diverse cultural traditions among indigenous people of the world and an understanding of the strengths and significant limitations of the dominant theory and practice of conflict resolution and mediation in Western European culture.

CSPH 5225 Meditation: Integrating Body and Mind
2 credit(s); prereq Jr or sr or grad student or instr consent;
Instructor: Storlie, Erik Fraser
Description: Description: The class approaches meditation as a physical, emotional, intellectual, and spiritual inquiry. Students read selections in a variety of relevant texts and develop the ability to enter a state of calm, meditative awareness. Objectives: Students will 1. demonstrate an understanding of the intellectual background of meditation, reading sources from the mainstream religious traditions of East and West, from indigenous sources, from contemporary practitioners, and from current scientific work linking meditation with wellness; 2. demonstrate the ability to assume a strong, stable, and relaxed physical posture sitting on cushions, benches, or chairs; 3. demonstrate the ability to calm the breath through a focus on deep, diaphragm breathing; 4. demonstrate the ability to dwell in steady consciousness of consciousness itself, allowing emotions and thoughts to rise and fall in calm awareness; 5. describe and discuss some of the many scientific, philosophical, existential, and spiritual questions that arise concerning the nature of human consciousness.

CSPH 5226 Advanced Meditation: Body, Brain, Mind, and Universe
1 credit(s); prereq [5225, [jr or sr or grad student]] or instr consent;
Instructor: Kreitzer, Mary Jo
Description: Student may contact the instructor or department for information.

CSPH 5315 Traditional Tibetan Medicine: Ethics, Spirituality, and Healing
2 credit(s); prereq Jr or sr or grad student or instr consent; Instructor: Cameron PhD, Miriam Elaine
Description: This course introduces students to ethics, spirituality, and healing from the perspective of traditional Tibetan medicine. Traditional Tibetan doctors believe that illness results from imbalance and that treating illness requires correcting the underlying imbalance. Students will learn how to apply these principles personally, integrate them into clinical practice, and consult with a traditional Tibetan doctor. Part of the course will include a 3-course sequence with CSPH 5317 - "Yoga: Ethics, Spirituality, & Healing" (Sum); CSPH 5318 - "Tibetan Medicine, Ayurveda, & Yoga in India" (May Session). CSPH 5315 and CSPH 5317 are prerequisites for CSPH 5318. To read more, go to Dr. Cameron's web site: http://www.tc.umn.edu/~cameron08/courses.html
Style: 35% Lecture, 10% Film/Video, 25% Discussion, 15% Student Presentation, 15% Guest Speakers. The 10 classes meet on Wednesdays, from 4:40-7:30 p.m. Eligible students can take the course as a distance course. For info, contact Dr. Cameron: <cameron08@umn.edu>
Grading: 70% reports/papers, 30% journal. Students may take the course A-F, S-N, or Audit, in person or as a distance student, if eligible. For info, contact Dr. Cameron: <cameron08@umn.edu>
Exam Format: No exams.

CSPH 5331 Foundations of Shamansim and Shamansic Healing
S-N only, 2 credit(s); prereq Jr or sr or grad student or instr consent;
Instructor: Lawson MD, Karen Lynn
Description: In this fundamentals course, students will learn essential elements of the non-biomedical shamanic "life-way" at the foundation of all shamanism. Participants will study shamanic beliefs about the individual's role in life, community, and the universe, and how these ideas are at the core of all shamanic healing practices. They will study cross-cultural healing beliefs and practices, the unique psychology necessary to understand them, and how these approaches may be used with contemporary healing practices and for personal growth. This course provides a core understanding of shamanic philosophies and ritual etiquette, properly preparing students to continue in deeper personal study and/or to participate in an experiential cultural immersion (e.g. via a Global Healing Traditions course.)

CSPH 5405 Plants in Human Affairs
4 credit(s); prereq Jr or sr or grad student or instr consent;
Instructor: McKenna PhD, Dennis Jon
Description: This 12-day, intensive course taught in Hawaii introduces students to the science of ethnobotany, ethnopharmacology and plants in human affairs through lectures, field trips and presentations by local experts. This introductory course will focus on the role of plants in human affairs. The course will include a combination of topics relevant to ethnobotany and ethnopharmacology. The ethnobotanical portion will emphasize the importance of plants in the modern world, and on the influence of plant/people interactions in the evolution of civilizations and cultures, migrations of peoples and
plants, cross-cultural contacts, wars, genocide, art, mythology, and religion, as well as topics on the traditional uses of plants by indigenous peoples. Ethnopharmacology combines aspects of botany, natural products chemistry, conventional pharmacology, pharmcognosy, anthropology, medicine, and even psychology and the comparative study of religions into a synthetic discipline whose subject matter is the human use of biologically active plants and animals as medicines, poisons, and "recreational" or ritual intoxicants. This course will cover both the ethnographic and scientific aspects of ethnopharmacology about equally. Emphasis will be placed on helping students to appreciate the importance of ethnopharmacological investigations in the process of drug discovery and the evolution of medicine, and to develop a cross-cultural perspective on human interactions with drugs and toxins.

Grading: 25% final exam, 20% quizzes, 15% written homework, 15% journal, 10% reflection paper, 15% in-class presentation.

CSPH 5511 Interdisciplinary Palliative Care: An Experiential Course in a Community Setting
2 credit(s); prereq instr consent; Instructor: STAFF
Description: Multidisciplinary teams of course participants will partner with interdisciplinary community hospice teams. They will participate in the delivery of care to patients in a variety of settings. This course will also include a series of seminars, employing self-analysis and case studies to further the participants' appreciation of and expertise in palliative care.

CSPH 5522 Therapeutic Horticulture
3 credit(s); prereq 5101 or Hort 5072 or instr consent; Instructor: Larson, Jean Marie
Description: This course is designed to provide an evidence-based understanding of the central elements of therapeutic horticulture in the context of multiple health care settings. Students will learn the history, principles, precepts, and practical application of therapeutic horticulture. At each session students will investigate the current research of therapeutic horticulture as treatment intervention in relation to various target populations. These findings will be analyzed and synthesized as it pertains to the focus of target population.

CSPH 5533 Introduction to Energy Healing
2 credit(s); prereq Jr or sr or grad student or instr consent; Instructor: STAFF
Description: This course will introduce students to healing techniques that use energetic systems in the body to enhance the body's ability to heal. Therapeutic Touch, Healing Touch, Reiki, acupuncture, reflexology, magnets, homeopathy, and many other modalities will be explored. Scientific theories explaining the mechanisms of energetic medicine and ways to measure energy will be investigated. Students will interact with practitioners of energy healing and describe the outcomes of such a practice.

CSPH 5535 Reiki Healing
S-N only, 1 credit(s); prereq Jr or sr or grad student or instr consent; Instructor: Ringdahl, Deborah Rene
Description: Students will learn the history, principles, precepts, and practical application of Reiki energy healing. Alternative energy healing modalities and current research findings will be discussed. Following activation of the Reiki energy, participants will learn the hand positions used to perform a treatment. A portion of each class meeting will be used to provide Reiki treatments and to discuss findings.

CSPH 5536 Advanced Reiki Healing: Level II
S-N only, 1 credit(s); prereq 5535, instr consent; Instructor: Ringdahl, Deborah Rene
Description: Students will learn advanced principles and application of Reiki energy healing. The four levels of healing will be further explored, with emphasis on healing at the spiritual level. Following activation of the Reiki energy, participants will learn the energy symbols that allow for energy transfer through space and time. Students will learn to use second level Reiki energy for both distance healing and the standard Reiki treatment. A portion of each class meeting will be used to provide Reiki treatments and to discuss findings. Current literature and research findings will also be discussed.

CSPH 5541 Emotional Healing and Happiness: Eastern and Western Approaches to Transforming the Mind
2 credit(s); prereq Sr or grad student or instr consent; Instructor: Young, Merra Lee
Description: Student may contact the instructor or department for information.

CSPH 5555 Introduction to Body and Movement-based Therapies
2 credit(s); prereq Jr or sr or grad student or instr consent; Instructor: Nordstrom-Loeb, Barbara E
Description: This course will cover the basic theories and approaches of selected Somatic Therapies, including dance, movement and body-based therapies. It will include 1) historic and theoretical perspectives on the use of movement, dance and somatic re-patterning, 2) demonstrations of specific techniques, and 3) application of techniques to specific populations and settings. The experiential part of the course will include individual, partner and group exercises intended to embody and deepen the topics covered in the class.

CSPH 5601 Music, Health and Healing
2 credit(s); prereq Jr or sr or grad student or instr consent; Instructor: Heiderscheit PhD, Annie Lynne
Description: This course provides an in-depth exploration of the music in medicine, including music therapy, music medicine and music psychotherapy practices, techniques and interventions. There will be explication of the hypotheses and rationale related to interventions, and an exploration of related research.

CSPH 5701 Fundamentals of Health Coaching I
A-F only, 4 credit(s); prereq Admitted to Complementary Therapies/Healing Practices certificate program's health coaching track or instr consent; Instructor: Lawson MD, Karen Lynn
Description: Student may contact the instructor or department for further information. There will be a $300 course fee associated with this course.

CSPH 5703 Advanced Health Coaching Practicum
A-F only, 3 credit(s); prereq 5101, 5102, 5701, 5702, admitted to Postbaccalaureate Certificate in Complementary Therapies/Healing Practices Health Coaching Track; Instructor: Lawson MD, Karen Lynn
Description: Student may contact the instructor or department for information.

CSPH 5704 Business of Health Coaching
A-F only, 1 credit(s); prereq 5101, 5102, 5701, 5702, admitted to postbaccalaureate certificate in complementary therapies/healing practices health coaching track; Instructor: Okpoko, Michele D
Description: Student may contact the instructor or department for information.

CSPH 5711 Optimal Healing Environments
3 credit(s); prereq Jr or sr or grad student or instr consent; Instructor: Kreitzer, Mary Jo
Description: Student may contact the instructor or department for information.

CSPH 8191 Independent Study in Complementary Therapies and Healing Practices
1-6 credit(s), max credits 6, 1 completion allowed; prereq instr consent; Instructor: Cameron PhD, Miriam Elaine
Description: Student may contact the instructor or department for information.

CSPH 8191 Independent Study in Complementary Therapies
and Healing Practices
1-6 credit(s), max credits 6, 1 completion allowed; prereq instr consent ;
Instructor: McKenna PhD, Dennis Jon
Description: Student may contact the instructor or department for information.

Chemical Engineering
151 Amundson Hall

CHEN 1001 Advances in Chemical Engineering and Materials Science
S-N only, 1 credit(s), max credits 2, 1 completion allowed; prereq Recommended for [chemical engineering, materials science/engineering] majors; Credit will not be granted if credit has been received for: MATS 1001;
Instructor: Mc Cormick, Alan Victor
Description: Student may contact the instructor or department for information.

CHEN 2001 Material and Energy Balances
A-F only, 4 credit(s); prereq [CHEM 2301 or Concurrent registration is required (or allowed in CHEM 2301), [MATH 2374 or Concurrent registration is required (or allowed in MATH 2374 or equiv), [PHYS 1302 or Concurrent registration is required (or allowed in PHYS 1302)];
Instructor: Cussler Jr, Edward L
Description: Student may contact the instructor or department for information.

CHEN 3005 Transport Phenomena: Momentum and Heat
A-F only, 4 credit(s); prereq [CHEM 2001 or Concurrent student, dept consent ]; upper div ChEn major;
Instructor: Cussler Jr, Edward L
Description: Student may contact the instructor or department for information.

CHEN 3005 Transport Phenomena: Momentum and Heat
A-F only, 4 credit(s); prereq [CHEM 2001 or Concurrent student, dept consent ]; upper div ChEn major;
Instructor: Cussler Jr, Edward L
Description: Student may contact the instructor or department for information.

CHEN 3041 Industrial Assignment I
A-F only, 2 credit(s); prereq ChEn upper Div, completion of required courses in ChEn prog through fall sem of 3rd yr, GPA of at least 2.80, registered in co-op prog; Credit will not be granted if credit has been received for: MATS 3041;
Instructor: Shores, David A
Description: Student may contact the instructor or department for information.

CHEN 3045 Chemical Engineering Industrial Internship
A-F only, 1 credit(s), max credits 2; prereq Plan approved by [supervisor, faculty internship co-op coordinator], report signed by industrial supervisor describing engineering work completed;
Instructor: Shores, David A
Description: Student may contact the instructor or department for information.

CHEN 3101 Chemical Engineering Thermodynamics
A-F only, 4 credit(s); prereq [[2001 or 4001 or [CHEM 3501, transfer student]], [upper div ChEn major or dept consent ] credit will not be granted if credit already received for: ChEn 4101;
Instructor: Morse, David Clark
Description: Student may contact the instructor or department for information.

CHEN 3101 Chemical Engineering Thermodynamics
A-F only, 4 credit(s); prereq [[2001 or 4001 or [CHEM 3501, transfer student]], [upper div ChEn major or dept consent ] credit will not be granted if credit already received for: ChEn 4101;
Instructor: Morse, David Clark
Description: Student may contact the instructor or department for information.

CHEN 3701 Introduction to Biomolecular Engineering
A-F only, 3 credit(s); prereq [4001 or equiv], [Chem 2302 or Concurrent registration is required (or allowed) in Chem 2302], [Math 2373 or equiv]; high school biology recommended;
Instructor: Hu, Wei Shou
Description: Student may contact the instructor or department for information.

CHEN 4041 Industrial Assignment II
A-F only, 2 credit(s); prereq 3041, completion of required courses in ChEn prog through fall sem of 4th year, GPA of at least 2.80, registration in co-op prog; Credit will not be granted if credit has been received for: MATS 4041;
Instructor: Shores, David A
Description: Student may contact the instructor or department for information.

CHEN 4401W Senior Chemical Engineering Lab
A-F only, 3 credit(s); prereq [[3005 or 4005], [3006 or 4006], [3101 or 4101], [3102 or 4102], [2001 or 4001], [3201 or 4201], 3401 CHEM 2311, [2121 or CHEM 4121], English composition requirement, upper div ChEn major] or dept consent; Meets CLE req of Writing Intensive;
Instructor: Cussler, Raul Alberto
Description: Student may contact the instructor or department for information.

CHEN 4501W Chemical Engineering Process Design
3 credit(s); prereq [4005, 4006, 4101, 4102, 4201, Chem 2311, Chem 4121, fr writing requirement, upper div ChEn major] or dept consent; Meets CLE req of Writing Intensive;
Instructor: Derby, Jeffrey Jay
Description: Student may contact the instructor or department for information.

CHEN 4593 Directed study
OPT No Aud, 1-4 credit(s), max credits 6, 3 completions allowed; prereq ChEn major upper division, instr consent ;
Instructor: STAFF
Description: Directed study under faculty supervision. Student must meet with faculty supervisor before registering to get permission to pursue directed study, arrange study project, grading option, number of credits, and final report requirements.

CHEN 4594 Directed Research
OPT No Aud, 1-4 credit(s), max credits 6, 3 completions allowed; prereq Instr. Consent Upper div ChEn;
Instructor: STAFF
Description: Independent laboratory research under faculty supervision. Student should meet with faculty supervisor before registering to get permission to pursue directed research, arrange research project, number of credits, grading option, and final report requirements.

CHEN 4601 Process Control
A-F only, 3 credit(s); prereq [3102 or 4102], [upper div ChEn major or dept consent ];
Instructor: Kumar, Satish
Description: Student may contact the instructor or department for information.

CHEN 4601 Process Control
A-F only, 3 credit(s); prereq [3102 or 4102], [upper div ChEn major or dept consent ];
Instructor: Kumar, Satish
Description: Student may contact the instructor or department for information.
CHEN 4701 Advanced Undergraduate Applied Math I: Linear Analysis
A-F only, 3 credit(s); prereq [3102 or 4102], ChEn major
upper div; Credit will not be granted if credit has been received for: CHEN 8201;
Instructor: Daoutidis, Prodomos
Description: Student may contact the instructor or department for information.

CHEN 4704 Advanced Undergraduate Physical Rate Processes I: Transport
A-F only, 3 credit(s); prereq [3005 or 4005], ChEn major
upper div;
Instructor: Cussler Jr, Edward L

CHEN 4707 Advanced Undergraduate Statistical Thermodynamics and Kinetics
A-F only, 3 credit(s); prereq ChEn 3005 or 4005, 3101 or 4101, CHEM 3501, CHEM 3502, ChEn major upper div;
Instructor: Kaznessis, Yiannis
Description: Student may contact the instructor or department for information.

CHEN 5551 Survey of Renewable Energy Technologies
A-F only, 3 credit(s); prereq [Upper div or instr consent ],
basic knowledge of chemistry, thermodynamics;
Instructor: Schmidt, Lanny D
Description: Student may contact the instructor or department for information.

CHEN 5771 Colloids and Dispersions
A-F only, 3 credit(s); prereq Physical chemistry;
Instructor: Lodge, Timothy P
Description: Student may contact the instructor or department for information.

CHEN 8201 Applied Mathematics I: Linear Analysis
A-F only, 3 credit(s); prereq Chemical engineering grad student or instr consent; Credit will not be granted if credit has been received for: CHEN 4701;
Instructor: Daoutidis, Prodomos
Description: Student may contact the instructor or department for information.

CHEN 8221 Synthetic Polymer Chemistry
A-F only, 4 credit(s); prereq [Undergrad organic chemistry course, undergrad physical chemistry course] or instr consent ; Credit will not be granted if credit has been received for: CHEM 4221;
Instructor: Hillmyer, Marc Andrew
Description: Student may contact the instructor or department for information.

CHEN 8301 Physical Rate Processes I: Transport
A-F only, 3 credit(s); prereq instr consent;
Instructor: Cussler Jr, Edward L
Description: Student may contact the instructor or department for information.

CHEN 8401 Physical and Chemical Thermodynamics
A-F only, 3 credit(s); prereq [Undergraduate [engineering course or chemistry course in thermodynamics], Chemical engineering grad student] or instr consent;
Instructor: Aydil, Eray S
Description: Student may contact the instructor or department for information.

CHEN 8402 Statistical Thermodynamics and Kinetics
A-F only, 3 credit(s); prereq Chemical engineering grad student or instr consent;
Instructor: Kaznessis, Yiannis
Description: Student may contact the instructor or department for information.

CHEN 8993 Directed Study
1-12 credit(s), max credits 12, 1 completion allowed;
Instructor: Kaznessis, Yiannis
Description: Student may contact the instructor or department for information.

CHEN 8994 Directed Research
1-12 credit(s), max credits 12, 1 completion allowed;
Instructor: Kaznessis, Yiannis
Description: Student may contact the instructor or department for information.

Chemical Physics
139 Smith Hall

CHPH 8601 Seminar: Modern Problems in Chemical Physics
S-N only, 1 credit(s), max credits 2; prereq Grad chem physics major or instr consent ;
Instructor: Siepmann, Ilja
Description: Student may contact the instructor or department for information.

Chemistry
139 Smith Hall

CHEM 1015 Introductory Chemistry: Lecture
3 credit(s); prereq [High school chemistry or equiv], two yrs high school math, not passed chem placement exam, Internet access; high school physics recommended CHEM 1015 is a 3-credit, lecture-only course, with the lectures delivered online via WebVista, and exams taken in person on campus. Internet access is required. Students who will go on to take CHEM 1021 should take CHEM 1015 only. Students who will NOT be continuing on to CHEM 1021 and need to fulfill the Physical Science/Lab core requirement need take the 1-credit lab course CHEM 1017 either concurrently or consecutively. This course will NOT fulfill the Physical Science/Lab core requirement unless the CHEM 1017 lab course is completed either concurrently or consecutively;
Instructor: STAFF
Description: Chem 1015 is an undergraduate introductory chemistry course. It may meet a chemistry or science requirement or it may serve as a bridge between high school chemistry and Chem 1021. This course provides a broad survey of chemistry, including an introduction to organic chemistry. Additional topics include matter and energy; measurements in chemistry; ionic and molecular compounds; chemical reactions and chemical equilibrium; gases, liquids, solids, and solutions; acids and bases; and nuclear chemistry.
Style: 100% Lecture.
Grading: 5% problem solving. 95% three mid-term exams and a final exam

CHEM 1017 Introductory Chemistry: Laboratory
A-F only, 1 credit(s); prereq [1015 or Concurrent registration is required (or allowed) in 1015], dept consent credit will not be granted if credit received for: 1011; CHEM 1017 is a 1-credit lab-only course. This course is not intended for students who are planning to take CHEM 1021. Intended only for students who need the course to fulfill the Physical Science/Lab requirement, and are taking CHEM 1015 either concurrently or consecutively. This course will NOT fulfill the Physical Science/Lab core requirement, unless CHEM 1015 is completed either concurrently or consecutively;
 Instructor: STAFF
Description: Registration by department permission only. See staff in 115 Smith Hall or call 612-624-0026. CHEM 1017 is identical to the lab for CHEM 1011, but students do not attend any lecture or take any exams. Intended only for students who have taken the lecture-only course CHEM 1015, and later determine that taking the lab is now required.
Style: 100% Laboratory.

CHEM 1021 Chemical Principles I
4 credit(s); prerequisite Grade of at least C- in [1011 or 1015] or passing placement exam; intended for science or engineering majors Note: Students who have previously received a grade of C- or better and wish to repeat this course should not register for it during the registration queue. If they do they may have their registration canceled. They will be allowed to register on a space available basis, during open enrollment.; Credit will not be granted if credit has been received for: CHEM 1031H; Meets CLE req of Physical Sciences;
Instructor: STAFF
Description: Chem 1021 and Chem 1022 are introductory undergraduate chemistry courses with lab. Lectures include chemical demonstrations. Together these two courses prepare students for majors in science, engineering, and the health sciences. Topics include atoms, molecules, and ions; types of chemical reactions and chemical stoichiometry; thermochromy; atomic structure and the periodic table; ionic and covalent bonding; molecular shapes; an introduction to organic chemistry and polymers; the nature of gases, liquids and solids.
Style: 50% Lecture, 50% Laboratory.
Grading: 20% laboratory evaluation, 80% other evaluation. Mid-term exams, final exam, problem sets

CHEM 1022 Chemical Principles II
4 credit(s); prerequisite Grade of at least C- in 1021 or equiv Note: Students who have previously received a grade of C- or better and wish to repeat this course should not register for it during the registration queue. If they do they may have their registration canceled. They will be allowed to register on a space available basis, during open enrollment.; Credit will not be granted if credit has been received for: CHEM 1032H; Meets CLE req of Physical Sciences;
Instructor: STAFF
Description: Chem 1022 is an introductory undergraduate chemistry course with lab. Together, Chem 1021 and Chem 1022 prepare students for majors in science, engineering, and the health sciences. Lectures include chemical demonstrations. Major topics are properties of solutions; chemical kinetics, the study of the rates and mechanisms of chemical reactions; chemical equilibrium in the gas phase; equilibria in aqueous solutions, including acid-base equilibria; entropy and free energy; electrochemistry; transition metals and coordination chemistry; and selected topics. Environmental issues related to course topics are an integral part of this course. For example, the discovery of the depletion of the stratospheric ozone layer by chlorofluorocarbons (CFCs) is an important application of chemical kinetics.
Style: 50% Lecture, 50% Laboratory.
Grading: 20% laboratory evaluation, 80% other evaluation. Mid-term exams, final exam, problem sets

CHEM 1031H Honors Chemistry I
A-F only, 4 credit(s); prerequisite Honors student and permission of University Honors Program; Credit will not be granted if credit has been received for: CHEM 1021; Meets CLE req of Physical Sciences;
Instructor: STAFF
Description: Chem 1031H is an introductory undergraduate chemistry course designed to help prepare students for careers in science, engineering, and the health sciences. Lecture includes chemical demonstrations. Chem 1031H is a survey of chemical principles and covers many different topics. The main themes include an advanced introduction to atomic theory; periodic properties of the elements; the behavior of gases, liquids and solids; molecular/ionic structure and bonding; aspects of organic chemistry, polymers and spectroscopy; energy sources and other environmental issues related to course topics.
Style: 50% Lecture, 50% Laboratory.
Grading: 20% laboratory evaluation, 80% other evaluation. Mid-term exams and final exam

CHEM 1231 Introduction to Organic Chemistry - I
A-F only, 4 credit(s); prerequisite Concurrent registration is required (or allowed) in MATH 1161, [high school chemistry or equiv] Only Rochester-admitted students will be able to enroll in this course.; Meets CLE req of Physical Science/Lab Core;
Instructor: Muthyala,Rajeev S.
Description: Student may contact the instructor or department for information.

CHEM 1905 Freshman Seminar
A-F only, 2 credit(s), max credits 3, 1 completion allowed; prerequisite freshman;
Instructor: Barany,George
Description: Student may contact the instructor or department for information.

CHEM 1905 Freshman Seminar
A-F only, 2 credit(s), max credits 3, 1 completion allowed; prerequisite freshman;
Instructor: Noland,Wayland E
Description: Student may contact the instructor or department for information.

CHEM 1905 Freshman Seminar
A-F only, 2 credit(s), max credits 3, 1 completion allowed; prerequisite freshman;
Instructor: Penn,LEE
Description: Student may contact the instructor or department for information.

CHEM 1910W Freshman Seminar: Writing Intensive
A-F only, 2 credit(s), max credits 4; prerequisite freshman; Meets CLE req of Writing Intensive;
Instructor: Leopold,Doreen Geller
Description: Student may contact the instructor or department for information.

CHEM 2094 Directed Research
1-3 credit(s), max credits 3, 1 completion allowed; prerequisite instructor consent;
Instructor: Stathopoulos,Stephanie M
Description: Student may contact the instructor or department for information.

CHEM 2101 Introductory Analytical Chemistry Lecture
3 credit(s); prerequisite 1022 or equiv;
Instructor: STAFF
Description: Primarily for chemistry majors. Methods/concepts of measurement by chemical/instrumental analysis, including titrimetry, quantitative spectrophotometric analysis, chromatographic separations, equilibrium/rate methods.
Style: 100% Lecture.
Grading: 10% problem solving, 90% other evaluation. Mid-term exams and final exam

CHEM 2111 Introductory Analytical Chemistry Lab
2 credit(s); prerequisite 2101 or concurrent enrollment 2101;
Instructor: STAFF
Description: Lab for CHEM 2101. High precision methods, acidimetry and complexometry, single and multicomponent analysis by spectrophotometry, analysis of mixtures by ion exchange and gas chromatography, enzymatic and rate methods.
Style: 25% Lecture, 75% Laboratory.
Grading: 10% final exam, 5% quizzes, 85% laboratory evaluation.

CHEM 2301 Organic Chemistry I
CHEM 2302 Organic Chemistry II
3 credit(s); prerequisite Grade of at least C- in 2301;
Instructor: STAFF
Description: This course is designed for undergraduates in the health and science fields that need to fulfill the undergraduate organic chemistry laboratory requirement. It is to be taken after the Organic I lecture course 2301, and concurrently or subsequent to Organic lecture course 2302. The 2311 course is one-semester in length, worth 4 credits, and equivalent to the usual two semester organic laboratory courses taught at other institutions. In the course, interesting and relevant experiments are used to teach the techniques used in the organic laboratory to study, synthesize, isolate, and purify organic compounds. A wide array of instruments including IR, NMR, and GC are used for analysis and computers are used to study molecular conformations and chemical properties. Molecules studied include analogs, flavors, natural products, dyes, recyclable polymers, and chemiluminescent compounds. Experiments are presented in a manual written by Wissinger and a laboratory techniques textbook &quot;Pavia&lt;gt;&quot; is required. Results are recorded both in report and worksheet formats. Overall, the objective is to give the students hands-on experience illustrating chemistry they learned in lecture, teach problem-solving skills, and demonstrate the value of organic chemistry in our daily lives.
Style: 100% Lecture.
Grading: 70% mid exam, 30% final exam, 10% problem solving.

CHEM 3501 Introduction to Thermodynamics, Kinetics, and Statistical Mechanics
3 credit(s); prerequisite [1022 or 1032H], [MATH 2263 or Concurrent registration is required (or allowed) in MATH 2263 or MATH 2374 or Concurrent registration is required (or allowed) in MATH 2374], [PHYS 1302 or PHYS 1402V];
Instructor: STAFF
Style: 100% Lecture.
Grading: 100% other evaluation. 3 Mid-term exams and a final exam

CHEM 4001 Chemistry of Plant Materials
A-F only, 4 credit(s); prerequisite 2302, [or or sr or instr consent ];
Instructor: Tschirner, Ulrike Waltrau
Description: Chemistry of cellulose, hemicellulose, lignin, extractives, proteins and other plant materials. About half of course focused on fundamentals, including building blocks of these natural polymers and typical reactions. Remaining course focuses on applications related to these materials (chemicals from biomass, cellulosic ethanol, biodiesel, biodegradable plastics, rayon, papermaking fibers, etc.)
Style: 70% Lecture, 30% Discussion.
Grading: 100% other evaluation. Based on 6 quizzes, 6 homeworks, final exam

CHEM 4011 Mechanisms of Chemical Reactions
3 credit(s); prerequisite [2302, 3501] or equiv;
Instructor: STAFF
Description: "Mechanisms of Chemical Reactions" is intended to prepare you to (1) elucidate the mechanisms of chemical reactions based on kinetic and thermodynamic principles and collected data, and (2) be able to evaluate mechanistic arguments made in the literature. The course is meant to be broadly applicable to many types of chemistry - organic, physical, materials, computational, etc. and will focus on the basic principles of reactions rather than specific kinds of molecules.
Style: 100% Lecture.
Grading: 67% mid exam, 33% problem solving.
CHEM 4094W Directed Research
1-5 credit(s), max credits 75, 15 completions allowed; prereq Any 3xxx or 4xxx chem course, instr consent; Meets CLE req of Writing Intensive;
Instructor: Stathopoulos, Stephanie M
Description: Student may contact the instructor or department for information.

CHEM 4101 Modern Instrumental Methods of Chemical Analysis Lecture
A-F only, 3 credit(s); prereq 2101, 2111, 2311, 3501;
Instructor: STAFF
Description: Basic electronic, optical, computer technologies employed in design of chemical instrumentation. Advanced topics in spectroscopy (e.g., FT-nmr, FT-IR, atomic absorption/emission). Electrochemistry. Mass spectrometry.
Style: 100% Lecture.
Grading: 30% mid exam, 30% final exam, 7% special projects, 15% quizzes, 15% problem solving, 3% other evaluation. extra materials

CHEM 4201 Materials Chemistry
3 credit(s); prereq [[3502 or equiv], 4701] or instr consent ; Credit will not be granted if credit has been received for:
CHEM 8201;
Instructor: STAFF
Description: Crystal systems/unit cells, phase diagrams, defects/interfaces, optical/ dielectric properties, electrical/thermal conductivity, X-ray diffraction, thin film analysis, electronic structure, polarones/phonons, solid state chemistry, liquid/molecular crystals, polymers, magnetic/optical materials, porous materials, ceramics, piezoelectric materials, biomedical materials, catalysts.
Style: 100% Lecture.
Grading: 31% mid exam, 38% final exam, 15% quizzes, 16% problem solving.

CHEM 4221 Introduction to Polymer Chemistry
3 credit(s); prereq [2302, 3501] or instr consent ; Credit will not be granted if credit has been received for: MATS 5221;
Instructor: Hillmyer, Marc Andrew
Description: Polymers will continue to enable essential development in emerging technologies that are critical to our society and infrastructure? is a quote from a recent National Science Foundation workshop on Polymer Science and Engineering. Polymers are fascinating materials used in everyday applications such as packaging, paints, and pants. The also find tremendous use in advanced technologies ranging from microelectronics to biomedicine. Chemists play a significant role in advancement of polymer science through the synthesis of new materials and their molecular and morphological characterization. If you are interested in the world of polymers, ?Introduction to Polymer Chemistry? would be an excellent starting point. This course will cover the basic principles of polymer chemistry with an emphasis on their synthesis and molecular characterization. Topics covered will include various polymerization techniques (or how you get from small organic molecules to long-chain macromolecules), the statistics of polymerization processes, reaction mechanisms, how to control chain length and comonomer incorporation, and how to measure molar mass. Contemporary polymerization methods will be emphasized and practical applications of these ubiquitous materials will be interwoven throughout the course. You can expect a mixture of organic reaction mechanisms, kinetics and thermodynamics of polymerizations, and some statistical analysis. The prerequisites for this course are Organic Chemistry II (CHEM 2302) & Introduction to Thermodynamics, Kinetics, and Statistical Mechanics (CHEM 3501). We will use the recently published book ?Polymer Chemistry? by Hiemzen and Lodge and will cover the first 5 chapters of that book: (1) Introduction to Chain Molecules; (2) Step-Growth Polymerization; (3) Chain-Growth Polymerization; (4) Controlled Polymerization; (5) Copolymers, Microstructure, and Stereoregularity. Other complementary topics will be included throughout the semester.
Style: 100% Lecture.
Grading: 60% mid exam, 25% final exam, 15% written homework.

CHEM 4311W Advanced Organic Chemistry Lab
2 credit(s); prereq 2311; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Reactions, techniques and instrumental methods used in modern synthetic organic chemistry.
Style: 10% Lecture, 90% Laboratory.
Grading: 100% laboratory evaluation.

CHEM 4321 Organic Synthesis
3 credit(s); prereq [2302 or equiv], 3501, instr consent ;
Instructor: STAFF
Description: Fundamental concepts, reactions, reagents, structural/stereochemical issues, and mechanistic skills for organic chemistry.

CHEM 4361 Interpretation of Organic Spectra
3 credit(s); prereq [2302 or equiv], 3501, instr consent ;
Instructor: STAFF
Description: Application of nuclear magnetic resonance, mass, ultraviolet, and infrared spectral analyses to organic structural problems.
Style: 100% Lecture.
Grading: 60% mid exam, 20% final exam, 20% problem solving.

CHEM 4411 Introduction to Chemical Biology
2 credit(s); prereq 2302 or equiv, 3501;
Instructor: STAFF
Description: Chemistry of amino acids, peptides, proteins, lipids, carbohydrates, and nucleic acids; topics will include structure, nomenclature, synthesis, and reactivity, as well as an overview of techniques used to characterize these biomolecules
Style: 100% Lecture.
Grading: 30% mid exam, 20% final exam, 20% class participation, 30% problem solving.

CHEM 4511W Advanced Physical Chemistry Lab
2 credit(s); prereq 3501-3502, chemistry major; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Experiments illustrating principles and methods of thermodynamics, reaction kinetics, and quantum mechanics.
Style: 20% Lecture, 80% Laboratory.
Grading: 100% laboratory evaluation.

CHEM 4701 Inorganic Chemistry
3 credit(s); prereq [2311 or Concurrent registration is required (or allowed in 2311), 3501 or Concurrent registration is required (or allowed in 3501 or 3502 or Concurrent registration is required (or allowed in 3502);
Instructor: STAFF
Description: Introduction to inorganic chemistry at an advanced level. Periodic trends. Structure and bonding concepts in compounds where s and p electrons are important. Descriptive chemistry of solids and transition metal compounds. Emphasis on transition metal chemistry. Advanced topics in main group and materials chemistry.
Style: 100% Lecture.
Grading: 60% mid exam, 25% final exam, 15% quizzes.

CHEM 4715 Physical Inorganic Chemistry
3 credit(s); prereq 4701 or equiv, chem major or instr consent ;
Instructor: Lu, Connie C
Description: This course will apply concepts such as molecular symmetry, group theory, and molecular orbital theory to the study of inorganic chemistry, with an emphasis on understanding the bonding and spectroscopy of transition metal complexes.

CHEM 5245 Introduction to Drug Design
A-F only, 3 credit(s); prereq 2302 or equiv; Credit will not be granted if credit has been received for: PHAR 6245;
Instructor: Wagner, Carston R
Description: Concepts that govern design/discovery of drugs. Physical, bioorganic, medicinal chemical principles applied to
explain rational design, mechanism of action drugs.

CHEM 5501 Introduction to Thermodynamics, Kinetics, and Statistical Mechanics
A-F only, 3 credit(s); prereq [1022 or 1032H], [MATH 2263 or Concurrent registration is required (or allowed) in MATH 2263 or MATH 2374 or Concurrent registration is required (or allowed) in MATH 2374], [PHYS 1302 or PHYS 1402V];
Instructor: Cramer, Christopher J
Description: Student may contact the instructor or department for information.

CHEM 5502 Introduction to Quantum Mechanics and Spectroscopy
A-F only, 3 credit(s); prereq [1022 or 1032H], [MATH 2263 or Concurrent registration is required (or allowed) in MATH 2263 or MATH 2374 or Concurrent registration is required (or allowed) in MATH 2374 or MATH 2243 or Concurrent registration is required (or allowed) in MATH 2243 or MATH 2373 or Concurrent registration is required (or allowed) in MATH 2373], [PHYS 1302 or PHYS 1402V];
Instructor: Gagliardi, Laura
Description: Student may contact the instructor or department for information.

CHEM 8011 Mechanisms of Chemical Reactions
4 credit(s); prereq 2302 or equiv;
Instructor: Mann, Kent R
Description: Student may contact the instructor or department for information.

CHEM 8025 Introduction to Graduate Research
A-F only, 1-2 credit(s), max credits 2; prereq Grad student in chem;
Instructor: Bowser, Michael
Description: Student may contact the instructor or department for information.

CHEM 8066 Professional Conduct of Chemical Research
S-N only, 1 credit(s); prereq Chem grad student;
Instructor: Truhlar, Donald G
Description: Student may contact the instructor or department for information.

CHEM 8151 Analytical Separations and Chemical Equilibria
4 credit(s); prereq instr consent;
Instructor: Carr, Peter William
Description: Student may contact the instructor or department for information.

CHEM 8152 Analytical Spectroscopy
4 credit(s); prereq grad chem major or instr consent;
Instructor: Haynes, Christy L
Description: Student may contact the instructor or department for information.

CHEM 8201 Materials Chemistry
A-F only, 4 credit(s); prereq [4701, 3502] or instr consent;
Credit will not be granted if credit has been received for: CHEM 4201;
Instructor: Stein, Andreas
Description: Student may contact the instructor or department for information.

CHEM 8221 Synthetic Polymer Chemistry
4 credit(s); prereq [Undergrad organic chemistry course, undergrad physical chemistry course] or instr consent;
Credit will not be granted if credit has been received for: CHEM 4221;
Instructor: Hillmyer, Marc Andrew
Description: Student may contact the instructor or department for information.

CHEM 8321 Organic Synthesis
4 credit(s); prereq 2302 or equiv;
Instructor: Hoye, Thomas R.
Description: Student may contact the instructor or department for information.

CHEM 8361 Interpretation of Organic Spectra
4 credit(s); prereq 2302 or equiv;
Instructor: Taton, T. Andrew
Description: Student may contact the instructor or department for information.

CHEM 8411 Introduction to Chemical Biology
4 credit(s); prereq 2302 or equiv;
Instructor: Distefano, Mark Dewey
Description: Student may contact the instructor or department for information.

CHEM 8541 Dynamics
4 credit(s); prereq Undergrad physical chem course; Credit will not be granted if credit has been received for: CHEM 5541;
Instructor: Truhlar, Donald G
Description: Newtonian, Lagrangian, and Hamiltonian dynamics, angular momentum and rotational motion, oscillations and normal modes of vibration, collision theory, and other topics in the classical dynamics of physical chemistry. Mathematical methods for physical chemistry, including vector calculus, the divergence theorem, Fourier series and transforms, differentials, delta functions, curvilinear coordinates, and orthogonal matrices.

CHEM 8551 Quantum Mechanics I
4 credit(s); prereq undergrad physical chem course; Credit will not be granted if credit has been received for: CHEM 5551;
Instructor: Lipsky, Sanford
Description: Student may contact the instructor or department for information.

CHEM 8561 Thermodynamics, Statistical Mechanics, and Reaction Dynamics I
4 credit(s); prereq undergrad physical chem course;
Instructor: Siepmann, Ilja
Description: Student may contact the instructor or department for information.

CHEM 8601 Seminar: Modern Problems in Chemistry
S-N only, 1 credit(s); prereq grad chem major or instr consent;
Instructor: Pierre, Valerie Christine
Description: Student may contact the instructor or department for information.

CHEM 8602 Seminar Presentation: Modern Problems in Chemistry
A-F only, 1 credit(s); prereq grad chem major or instr consent;
Instructor: Pierre, Valerie Christine
Description: Student may contact the instructor or department for information.

CHEM 8715 Physical Inorganic Chemistry
4 credit(s); prereq 4701 or equiv, grad chem major or instr consent;
Instructor: Lu, Connie C
Description: Student may contact the instructor or department for information.

Chicana Studies
19 Scott Hall

CHIC 1102 Latinos in the United States: Culture and Citizenship
3 credit(s); Meets CLE req of Diversity and Soc Justice US;
meets CLE req of Historical Perspectives;
Instructor: Nelson Herrera,Toni Marie
Description: This course offers an interdisciplinary introduction to the cultural, historical and social diversity of Latinas/os in the U.S. Through examining literature, film and popular cultural productions, students will learn how the experiences and identities of Latinas/os in the U.S. converge and diverge in relation to one another and to other cultural groups in the United States. This course is designed to provide students with the historical and cultural knowledge necessary in understanding the complex and multi-layered relationship that Latinas/os have to this country, their country of origin, and how social, cultural, and political dynamics influence Latina/o identity, politics and sense of belonging in the U.S. Class time: 20% lecture, 50% discussion, 10% film, 10% group presentation, 10% exams/quiz/week homework 60-70 pages reading per week, 10 pages total writing* (2 short essays), 1 presentation, mid-term exam, final exam, cultural event** Grade: class participation and attendance (20%), group presentation (10%), quizzes (15%), 2 short essays (20%) mid-term exam (15%), final exam (20%) Honors student will have additional required readings and are required to complete 15 pages of writing assignments.Honors students must fulfill cultural event requirement

CHIC 1102H Latinos in the United States: Culture and Citizenship
3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Historical Perspectives;
Instructor: Nelson Herrera,Toni Marie
Description: This course offers an interdisciplinary introduction to the cultural, historical and social diversity of Latinas/os in the U.S. Through examining literature, film and popular cultural productions, students will learn how the experiences and identities of Latinas/os in the U.S. converge and diverge in relation to one another and to other cultural groups in the United States. This course is designed to provide students with the historical and cultural knowledge necessary in understanding the complex and multi-layered relationship that Latinas/os have to this country, their country of origin, and how social, cultural, and political dynamics influence Latina/o identity, politics and sense of belonging in the U.S. Class time: 20% lecture, 50% discussion, 10% film, 10% group presentation, 10% exams/quiz/week homework 60-70 pages reading per week, 10 pages total writing* (2 short essays), 1 presentation, mid-term exam, final exam, cultural event** Grade: class participation and attendance (20%), group presentation (10%), quizzes (15%), 2 short essays (20%) mid-term exam (15%), final exam (20%) Honors student will have additional required readings and are required to complete 15 pages of writing assignments.Honors students must fulfill cultural event requirement

CHIC 1201 Racial Formation and Transformation in the United States
3 credit(s); Meets CLE req of Diversity and Soc Justice US;
Instructor: Onihi,Yuichiro
Description: Grading basis/credits: 3 credit(s) Description: What does it take to discuss race seriously? An exploration of this question demands a counter-narrative, for our contemporary moment is such that a growing public opinion (1) casts America as a “raceless” nation, (2) interprets antiracism as “reverse racism,” and (3) embraces “diversity” to maintain the racial status quo. Talking about race is not easy to be sure; it engenders a host of unsettling emotions ranging from guilt and shame to anger. Yet not talking about race as a social fact in American life and culture forecloses possibilities to understand how racial differences are constructed through domination over time and ultimately to reach across myriad boundaries of social difference to strive toward a shared sense of community and belonging. Together, we will participate in racial struggles, albeit at times painful and challenging, to address and grapple with ethico-political imperatives to pursue social justice and make the notion of diversity anew. Class Time: 40% Lecture, 40% Discussion, 20% Small Group Activities. Work Load: 80-100 pages reading per week, 18 pages writing per term, 1 exams. Grade: 80% written work; 20% class participation.

CHIC 1275 Service Learning in the Chicano/ Latino Community
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: CHIC 3275;
Instructor: Ganley,Kathleen Marie
Description: This course is premised on the notion that there are many institutional and social constraints and limitations within schools that block equitable educational opportunities and outcomes for Latino students. It is also based on the idea that students who fail to learn in our schools and fail to graduate are our responsibility. In this course, you will be asked to think and act as you contribute to youth education. You will study the education of Chicanos/Latinos in the United States through the integration of academic materials, discussion, guest speakers and visits to the community while doing community service in an educational setting with Latino youth. Over the course of the semester, you will provide 36 hours of tutoring and mentoring in culturally grounded programs. You will analyze the education of Chicanos/Latinos while reflecting on issues such as equality, language usage, graduation statistics, college enrollment, various educational methodologies, special challenges faced by immigrants, and current legislation to create change. Students will also use what they learn in this course to affect legislative change.
Style: 20% Lecture, 40% Discussion. presentations, Web-CT Grading: 20% reports/papers, 10% in-class presentation, 10% class participation, 10% problem solving, 50% other evaluation. tutoring at community site

CHIC 1902 Freshman Seminar: Chicana/o-Latino/a History, Culture, and Identity
3 credit(s); Meets CLE req of Diversity and Soc Justice US;
Instructor: Sass Zaragoza,Lisa
Description: In this seminar, we will examine the complex dynamics of a and relationships between history, culture and identity, focusing on the Chicana/o-Latino/a experience in the United States. Through readings, writings, activities inside and outside of the classroom, we will examine our personal and historical experiences as well as that of our communities to better understand, express and construct what it means to be Chicana/o or Latino/a in contemporary US society.

CHIC 3212 Chicana Studies: La Chicana in Contemporary Society
3 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Diversity and Soc Justice US;
Instructor: Padron,Karla M
Description: This course explores the scholarly, activist and creative work of Chicanas or politically defined women of the Mexican American community. The readings, lectures and learning activities are interdisciplinary in nature, drawing on a wide variety of fields and expertise. We will emphasize the historical, political, socioeconomic and cultural contexts in which the author/2s are writing; look at various cultural processes relevant to Mexican American women2s lives; learn, analyze and critique Chicana feminist perspectives, theories, methods and modes of inquiry, paying attention to their strategic uses of autoethnography in the creation of Chicana subjectivity, identities, and aesthetics. We will explore a variety of foundational texts in Chicana Studies, discuss the sociopolitical events that influenced this writing, and examine current debates in the field.

CHIC 3221 Introduction to Chicana/o Cultural Studies: Barrio Culture and the Aesthetics of Everyday Life
3 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Diversity and Soc Justice US;
Instructor: Pate,SooJin
Description: This class takes a cultural studies approach to investigating the aesthetic dimensions of the Chicana/o experience that inform and are informed by the dynamic relationship between culture, class, ethnicity, and power. The goals in this class are multiple: 1) to identify the prevailing paradigms of cultural production among people of Mexican descent in the United States, with particular regard to how they are manifested in daily life; 2) to assess the relationship between these forms and the spiritual and material conditions of the lives
CHIC 3275 Service Learning in the Chicano/Latino Community
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: CHIC 1275;
Instructor: Ganley,Kathleen Marie
Description: This course is premised on the notion that there are many institutional and social constraints and limitations within schools that block equitable educational opportunities and outcomes for Latino students. It is also based on the idea that students who fail to learn in our schools and fail to graduate are our responsibility. In this course, you will be asked to think and act as you contribute to youth education. You will study the education of Chicanos/Latinos in the United States through the integration of academic materials, discussion, guest speakers and visits to the community while doing community service in an educational setting with Latino youth. Over the course of the semester, you will provide 36 hours of tutoring and mentoring in culturally grounded programs. You will analyze the education of Chicanos/Latinos while reflecting on issues such as equality, language usage, graduation statistics, college enrollment, various educational methodologies, special challenges faced by immigrants, and current legislation to create change. Students will also use what they learn in this course to affect legislative change.
Style: 20% Lecture, 40% Discussion, presentations, Web-CT Grading: 20% reports/papers, 10% in-class presentation, 10% class participation, 10% problem solving, 50% other evaluation. Tutoring at community site

CHIC 3375 Folklore of Greater Mexico
3 credit(s); Meets CLE req of Diversity and Soc Justice US; Instructor: Nelson Herrera,Toni Marie
Description: This course is a scholarly survey and exploration of the sociocultural function of various types of folklore in Greater Mexico. Students will analyze the ways in which folklore constructs and maintains community, as well as resists and creates cultural shifts. The central objective of the course will be to gain an understanding of how folklore and folk knowledge shape Chicano culture and traditions. We will ask questions regarding the formation of ideas around inclusion and exclusion and the creation of social order, as well as the importance of traditional knowledge in shaping our world-views. Students will be introduced to the study of Chicana/o folklore as an interdisciplinary field of inquiry.

CHIC 3444 Chicana/o and Chicano History: 1821-1945
3 credit(s); Credit will not be granted if credit has been received for: HIST 3441; Meets CLE req of Diversity and Soc Justice US; meets CLE req of Historical Perspectives;
Instructor: Nelson Herrera,Toni Marie
Description: This course examines the experiences of people of Mexican descent in the United States. The course will provide a foundation for understanding the central role of Chicanas and Chicanos in the history, culture, and politics of the United States. While organized chronologically the guiding principle of this course is the understanding that the lives of people of Mexican descent are multiply constructed. That is, interrogating the lived experiences of Chicanas/os through the lens of intersectionality offers new insight into both Chicana/o and US history. We will use a variety of sources including monographs, articles, novels, primary documents, movies and documentaries in order to construct a nuanced understanding of Chicanas and Chicanos at different historical moments.

CHIC 3507W Introduction to Chicana/o Literature
3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Literature; meets CLE req of Writing Intensive;
Instructor: Covarrubias,Alexandra Mendoza
Description: Students will be introduced to students to a variety of genres within Chicana/o literature. Emphasis will be placed on the use and function of feminine archetypes within the canon of Chicana/o literature. Students will be exposed to a variety of texts and writing styles and will learn to identify the themes and aesthetics that characterize Chicana/o literature in its many forms as well as understand the significance of the counter-narratives that Chicana/o literature presents. We will approach the readings from an intersectional perspective; analyzing works for the ways in which they confront not only race, class, sexuality and gender issues, but issues of transnationalism and globalization as well.
Style: 25% Lecture, 60% Discussion, 15% Student Presentation.
Grading: 25% reports/papers, 20% quizzes, 30% reflection paper, 10% in-class presentation, 10% class participation, 5% other evaluation. 2 short papers (15% each), final paper (25%), 5 quizzes- lowest score dropped (20%), group presentation (10%), and class participation (10%)

CHIC 3852 Chicana/o Politics
3 credit(s); Credit will not be granted if credit has been received for: POL 3752; Meets CLE req of Diversity and Soc Justice US; meets CLE req of Social Sciences;
Instructor: Duenes,Michael
Description: This course explores the theory and practice of Chicana/o politics through an analysis of Mexican American experience, social agency and response to larger political systems and behaviors using social science methods of inquiry. It looks at unequal power relations within the US; Chicana/o political movements for educational and social justice; and the relationship between social diversity, stratification and the political economy.

CHIC 3993 Directed Studies
1-9 credit(s), max credits 16, 16 completions allowed; prereq instr consent ;
Instructor: Mendoza,Louis Gerard
Description: Student may contact the instructor or department for information.

CHIC 4232 Chicana/o - Latina/o Gender and Sexuality Studies
3 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Diversity and Soc Justice US;
Instructor: Rodriguez,Reina C
Description: This course addresses the critical thinking of Chicanas/os and Latinas/os around the construction of gender and the politics of sexual identity. It examines how the self is gendered and sexual subjectivities are formed in relationship to racial, class, national and subaltern positions under different historical, cultural and social structural conditions. Students will examine how gender and sexual norms are constructed in relationship to other overlapping and intersecting categories like race, class, and nationality as well as through popular culture. We consider the way in which the borders that define, disrupt and confine gender and sexuality norms shift over time in response to the needs and desires of those in power.

CHIC 4901W Senior Paper
A-F only, 3 credit(s); Meets CLE req of Writing Intensive;
Instructor: Mendoza,Louis Gerard
Description: Student may contact the instructor or department for information.

CPSY 1904 Freshman Seminar: International Perspectives
1-3 credit(s), max credits 3, 1 completion allowed; prereq Fr;
Instructor: Maratose, Michael P
Description: Student may contact the instructor or department for information.

CPSY 2301 Introductory Child Psychology
4 credit(s); prereq 4 cr intro psych; Credit will not be granted if credit has been received for: CPSY 3301;
Instructor: Heinrichs PhD,Marian R

Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. This course covers the period from conception through adolescence. The curriculum covers the principles and themes of development and is aligned closely with the textbook. To paraphrase the text: Development consists of age-related changes that are orderly, that is, change follows a logical sequence; cumulative, that is, each phase of development includes all the changes that occur before it; and directional, such that development always moves towards greater complexity. The challenge is to explain development. Our focus will be on research. We need to know how research happens, how it begins with a testable idea and then becomes real through observations or experiments with actual participants, and finally, how to think critically about the results and how this can impact policy.

Style: Online with handwritten exams
Grading: 15% mid exam, 15% final exam, 20% special projects, 50% written homework. On the S/N basis, you must earn at least a 70% for an S.
Exam Format: Supervised, in-person (not online) exams.

CPSY 2301 Introductory Child Psychology
4 credit(s); prereq 4 cr intro psych; Credit will not be granted if credit has been received for: CPSY 3301;
Instructor: Warren,Henriette

Description: This undergraduate survey course will examine social and cognitive development from the prenatal period through adolescence. The major goals include fostering an understanding of the usefulness of a developmental approach to psychological issues, and familiarizing students with current research and methodology in child psychology. This course emphasizes normal physical, cognitive, emotional, and social development. Class sessions will include a mixture of lectures, discussion, videos, and group activities.

Style: 80% Lecture, 10% Discussion. instructional videos
Grading: 50% mid exam, 20% final exam, 15% reports/papers, 5% class participation, 10% laboratory evaluation.
Exam Format: multiple choice

CPSY 3301 Introductory Child Psychology for Social Sciences
4 credit(s); Credit will not be granted if credit has been received for: CPSY 2301;
Instructor: Martin MA,David Myron

Description: A-F only, 4 credit(s); prereq 2301, Psy 1001; Psychology

CPSY 3301 Introductory Child Psychology for Social Sciences
4 credit(s); Credit will not be granted if credit has been received for: CPSY 2301;
Instructor: Heinrichs PhD,Marian R

Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. In this course, we will learn about each phase of development, and address the factors that influence it. We will look to research to answer these questions, but the answers are not always clear. Consider these examples: Children raised in a home with domestic violence will have a high probability of negative outcomes, but how is it that some children show great resilience? We know that the early relationship that develops between the child and caregiver is essential to the healthy development of the child's socio-emotional and cognitive functioning; what is the effect of mothers returning to work within the first year of a child's life? Each of the issues is complex, and critical to our communities.

Style: Online with handwritten exams
Grading: 15% mid exam, 15% final exam, 4% reflection paper. Also: 6 essays--36% 2 research projects--20% 1 research proposal--10%
Exam Format: Supervised, in-person (not online) exams

CPSY 3301 Introductory Child Psychology for Social Sciences
4 credit(s); Credit will not be granted if credit has been received for: CPSY 2301;
Instructor: Warren,Henriette

Description: This undergraduate survey course will examine social and cognitive development from the prenatal period through adolescence. The major goals include fostering an understanding of the usefulness of a developmental approach to psychological issues, and familiarizing students with current research and methodology in child psychology. This course emphasizes normal physical, cognitive, emotional, and social development. Class sessions will include a mixture of lectures, discussion, videos, and group activities.

Style: 80% Lecture, 10% Discussion. instructional videos
Grading: 40% mid exam, 20% final exam, 25% reports/papers, 5% class participation, 10% laboratory evaluation.
Exam Format: multiple choice

CPSY 3308 Introduction to Research Methods in Child Psychology
A-F only, 4 credit(s); prereq 2301, Psy 1001;
Instructor: Karatekin,Canan

Description: A-F only, 4 credit(s); prereq 2301, Psy 1001;
Instructor: Martin MA,David Myron

Description: This course will help students gain an understanding of human development during infancy. The key areas covered in the course are: perceptual, motor, social, cognitive, and nervous-system development. The part of the course will focus on cognitive and social development. This part will also explore the development of language and memory. The final part of the course will deal with social development. It will include topics such as parent-child attachment, temperament, and the effects of environmental deprivation and enrichment. The course emphasizes methodological hazards that should be attended to in making inferences about infant function and development.

Style: 80% Lecture, 20% Discussion.
Grading: 40% final exam, 30% reports/papers, 30% quizzes.
Exam Format: Short Answer Essay

CPSY 4302 Infant Development
A-F only, 4 credit(s); prereq 2301 or instr consent;
Instructor: Yonas,Albert

Description: The goal of this course is to survey the field of infant development, its theories and methods. The course will concentrate on the period that begins with conception and ends at two years of life. The first part of the course will deal with the first year of life, including prenatal development, physical, neurological, motor and perceptual development. The second part of the course will focus on cognitive and social development. This part will also explore the development of language and memory. The final part of the course will deal with social development. It will include topics such as parent-child attachment, temperament, and the effects of environmental deprivation and enrichment. The course emphasizes methodological hazards that should be attended to in making inferences about infant function and development.

Style: 80% Lecture, 20% Discussion.
Grading: 40% final exam, 30% reports/papers, 30% quizzes.
Exam Format: Short Answer Essay

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
Additionally, students will come to understand the strengths and limitations of the methods used in infancy research.

**Style:** Online with handwritten exams

**Grading:** 25% midterm exam, 25% final exam, 15% special projects, 35% written homework.

**Exam Format:** Supervised, in-person exams.

CPSY 4303 Adolescent Psychology

A-F only, 4 credit(s); prereq Psy 1001;
Instructor: Clarke, Stephanie Blair

Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You will work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. This course provides an overview of the distinctive characteristics of adolescent development and its links to development during childhood and emerging adulthood. By discussing both theories and research, you will come to understand the roles physical, cognitive, and social changes, as well as changing contexts, play in shaping a teen's growth. We will address typical adolescent development as well as abnormal teen behavior and its antecedents and consequences. Finally, the implications of research for adolescent and family policy and intervention will be explored.

Style: Online with handwritten exams

Grading: --2 reflection and practice assignments (3.3%) --8 application assignments (53.3%) --midcourse exam (16.7%) --cumulative final exam (26.7%)

Exam Format: Supervised, in-person exams.

CPSY 4303 Adolescent Psychology

A-F only, 4 credit(s); prereq Psy 1001;
Instructor: Mathieson, Lindsay Catherine

Description: Student may contact the instructor or department for information.

CPSY 4311 Behavioral and Emotional Problems of Children

A-F only, 4 credit(s); prereq Intro psych;
Instructor: Masten, Ann S.

Description: Student may contact the instructor or department for information.

CPSY 4329 Biological Foundations of Development

A-F only, 4 credit(s); prereq 2301 or equiv;
Instructor: Lafort, Theresa Lynn

Description: Student may contact the instructor or department for information.

CPSY 4331 Social and Personality Development

A-F only, 4 credit(s); prereq 2301, Psy 1001;
Instructor: Lingras, Katie

Description: This fully online section is offered through Online and Distance Learning (ODL), College of Continuing Education. You will work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. The purpose of this course is to consider how the individual child develops personality—patterns of social behavior, attitudes, and values—in light of the diversity of personal characteristics and social experiences. The readings and study guide are not organized according to chronological age or the specific characteristics of any age group; instead, the course focuses on developmental principles and processes that help us understand growth and change throughout childhood and middle adolescence.

Style: Online with handwritten exams

Grading: 20% mid exam, 20% final exam, 20% reports/papers, 40% written homework.

Exam Format: Supervised, in-person (not online) exams.

CPSY 4333W Children, Youth in Society

A-F only, 4 credit(s); prereq 2301; Meets CLE req of Writing Intensive;
Instructor: Yussen, Steve

Description: Student may contact the instructor or department for information.

CPSY 4341 Perceptual Development

3 credit(s); prereq 2301;
Instructor: Pick Jr, Herbert L

Description: What meaningful information can babies, even newborns, gain through the senses: seeing, hearing, feeling, etc? How do we know? How do such elementary capacities develop into skills like a 2-year old guiding a spoonful of food to its mouth or a 10-year old catching a fly ball? What is the course of development from a young infant unable to crawl to a teenager finding their way in a strange city or in thick woods on a camping trip? What kinds of experience play a role in these achievements? This course will examine such issues and more.

Style: 80% Lecture, 20% Discussion.

Grading: 30% mid exam, 35% final exam, 25% reports/papers, 10% other evaluation. For discussion questions based on readings. Students will be assigned specific readings.

Exam Format: Multiple choice, short answer, and/or short essay

CPSY 4343 Cognitive Development

A-F only, 3 credit(s); prereq 2301;
Instructor: Sera PhD, Maria D

Description: This course is designed to introduce undergraduates to the study of cognitive development. Psychologists undertake this study with a variety of theoretical perspectives, and methodologies. In this course, students will learn about those themes and methods, where they originated and how they are embodied in contemporary research. The course is organized into four sections: Perceptual Development; Piaget's Theory; Information-Processing Approaches, and Language Development. No section will be covered in depth, but instead, a general overview of the major issues, methods, and findings in each area will be provided. The primary reading for the course will be a book entitled "Children's Thinking", written by Robert Siegler in 1998.

Style: 100% Lecture.

Grading: 30% final exam, 70% other evaluation, 3 in-class exams (+ final)

CPSY 4345 Language Development and Communication

A-F only, 3 credit(s); prereq 2301;
Instructor: Koenig, Melissa

Description: Student may contact the instructor or department for information.

CPSY 4347W Senior Project

A-F only, 2 credit(s); prereq CPSy sr; Meets CLE req of Writing Intensive;
Instructor: Guler, Ozgun Evren

Description: Student may contact the instructor or department for information.

CPSY 4993 Directed Instruction in Child Psychology

S-N only, 1-4 credit(s), max credits 8, 8 completions allowed; prereq ECSE or MEd student;
Instructor: Carlson, Ann Ruhl
CPSY 4994 Directed Research in Child Psychology (Honors Thesis)
1-6 credit(s), max credits 6, 4 completions allowed; prereq 4 cr in CPSy, CPSy honors, instr consent , dept consent ;
Instructor: Maratos,Michael P
Description: Student may contact the instructor or department for information.

CPSY 4994V Directed Research in Child Psychology (Honors Thesis)
1-6 credit(s), max credits 6, 4 completions allowed; prereq 4 cr in CPSy, CPSy honors, instr consent , dept consent ;
Instructor: STAFF
Description: This is an opportunity for students to assist in developmental research. Many opportunities are listed on our CPSY undergraduate advising board in Room 106. Possible tasks might include making phone calls to solicit subjects: scheduling and confirming appointments; updating information; filming subjects; coding data, entering data into a computer; tabulating data; analyzing data statistically; sitting with siblings during experiments; doing library research; collecting archival data. This list is not exhaustive. A contract and override are required to register. The student uses a contract as an opportunity to clarify opportunities, responsibilities, and desires, etc.
Style: 10% Discussion, 90% Laboratory.
Grading: 20% special projects, 70% laboratory evaluation, 10% problem solving.

CPSY 4994V Directed Research in Child Psychology (Honors Thesis)
1-6 credit(s), max credits 6, 4 completions allowed; prereq 4 cr in CPSy, CPSy honors, instr consent , dept consent ;
Instructor: Cicchetti PhD,Dante
Description: Student may contact the instructor or department for information.

CPSY 4994V Directed Research in Child Psychology (Honors Thesis)
1-6 credit(s), max credits 6, 4 completions allowed; prereq 4 cr in CPSy, CPSy honors, instr consent , dept consent ;
Instructor: Sroufe,L Alan
Description: Student may contact the instructor or department for information.

CPSY 4994V Directed Research in Child Psychology (Honors Thesis)
1-6 credit(s), max credits 6, 4 completions allowed; prereq 4 cr in CPSy, CPSy honors, instr consent , dept consent ;
Instructor: Gunnar PhD,Megan R
Description: Student may contact the instructor or department for information.

CPSY 4994V Directed Research in Child Psychology (Honors Thesis)
1-6 credit(s), max credits 6, 4 completions allowed; prereq 4 cr in CPSy, CPSy honors, instr consent , dept consent ;
Instructor: Egeland,Byron R
Description: Student may contact the instructor or department for information.

CPSY 4994V Directed Research in Child Psychology (Honors Thesis)
1-6 credit(s), max credits 6, 4 completions allowed; prereq 4 cr in CPSy, CPSy honors, instr consent , dept consent ;
Instructor: Collins,W Andrew
Description: Student may contact the instructor or department for information.

CPSY 4994V Directed Research in Child Psychology (Honors Thesis)
1-6 credit(s), max credits 6, 4 completions allowed; prereq 4 cr in CPSy, CPSy honors, instr consent , dept consent ;
Instructor: Sera PhD,Maria D
Description: Student may contact the instructor or department for information.
MeetGS Schedule.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online University of Minnesota - Course Guide for Twin Cities Campus Fall 2010.

CPSY 5281 Student Teaching in Early Childhood Education
S-N only, 1-6 credit(s); max credits 6, 1 completion allowed; prereq MEd student in early childhood ed or early childhood special ed credit will not be granted if credit received for: 5281;
Instructor: Murphy, Barbara Ann
Description: Student may contact the instructor or department for information.

CPSY 5413 Early Childhood and Public Policy
3 credit(s);
Instructor: Slawik, Nora B
Description: If you want to learn directly from legislators, early education professionals, economists, lobbyists and other social scientists about state, federal and international policies affecting young children and their families this class is essential. We will explore readings and expert speaker presentations on family, community and institutional roles in promoting children's social, cognitive and emotional development and their acquisition of language and pre-literacy skills. This course illuminates the gaps between the science of early childhood development and how public policies support young children and their caregivers. Classroom discussions will focus on innovative public policies and financing affecting young children and their physical and mental health care, poverty influences, quality child care, economics, special needs and workforce issues. Graduate students in the areas of early childhood and public policy as well as community members with experience in the early childhood field are the intended audience. This class is the cornerstone of the Early Childhood Policy Certificate program, a postbaccalaureate sequence intended to develop individuals' capacity to apply research-informed knowledge of early development to federal and state policy affecting children up to age 8.
Style: 20% Lecture, 20% Discussion, 20% Small Group Activities, 10% Student Presentation, 20% Guest Speakers. Experts in the areas related to young children speak regularly on kindergarten readiness, statistical preschool studies, legislation, poverty, economics and workforce issues.
Grading: 40% reports/papers, 10% special projects, 30% written homework, 10% attendance, 10% class participation. Class attendance also weighs into the final grade if the student misses more than two of the weekly classes.

CPSY 5518 Prevention and Intervention in Infant and Early Childhood Mental Health I
A-F only, 3 credit(s); prereq 5501, 5503, 5506, 5508;
Instructor: Schultz, Susan Kristine
Description: Student may contact the instructor or department for information.

CPSY 5523 Reflective Supervision in Infant and Early Childhood Mental Health: Community-based
S-N only, 1 credit(s); prereq Concurrent registration is required (or allowed) in 5518 or Concurrent registration is required (or allowed) in 5521;
Instructor: Schultz, Susan Kristine
Description: Student may contact the instructor or department for information.

CPSY 8301 Developmental Psychology: Cognitive Processes 4 credit(s); prereq Doctoral student, instr consent;
Instructor: Thomas, Kathleen M
Description: Student may contact the instructor or department for information.

CPSY 8311 Landmark Issues and Great Controversies in Child Development
S-N only, 2 credit(s); prereq CPsy doctoral student or instr consent;
Instructor: Collins, W Andrew
Description: Student may contact the instructor or department for information.

CPSY 8321 Seminar: Current Issues in Teaching Developmental Psychology

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
CPSY 8994 Research Problems in Child Psychology
1-6 credit(s), max credits 15, 15 completions allowed; prereq
Doctoral student or instr consent; Instructor: Crick,Nicki R
Description: Student may contact the instructor or department for information.

CPSY 8994 Research Problems in Child Psychology
1-6 credit(s), max credits 15, 15 completions allowed; prereq
Doctoral student or instr consent; Instructor: Collins,W Andrew
Description: Student may contact the instructor or department for information.

CPSY 8994 Research Problems in Child Psychology
1-6 credit(s), max credits 15, 15 completions allowed; prereq
Doctoral student or instr consent; Instructor: Sroufe,L Alan
Description: Student may contact the instructor or department for information.

CPSY 8994 Research Problems in Child Psychology
1-6 credit(s), max credits 15, 15 completions allowed; prereq
Doctoral student or instr consent; Instructor: Yussen,Steve
Description: Student may contact the instructor or department for information.

CPSY 8994 Research Problems in Child Psychology
1-6 credit(s), max credits 15, 15 completions allowed; prereq
Doctoral student or instr consent; Instructor: Egeland,Byron R
Description: Student may contact the instructor or department for information.

CPSY 8994 Research Problems in Child Psychology
1-6 credit(s), max credits 15, 15 completions allowed; prereq
Doctoral student or instr consent; Instructor: Gunnar PhD,Megan R
Description: Student may contact the instructor or department for information.

CPSY 8994 Research Problems in Child Psychology
1-6 credit(s), max credits 15, 15 completions allowed; prereq
Doctoral student or instr consent; Instructor: Karatekin,Canan
Description: Student may contact the instructor or department for information.

CPSY 8994 Research Problems in Child Psychology
1-6 credit(s), max credits 15, 15 completions allowed; prereq
Doctoral student or instr consent; Instructor: Crick,Nicki R
Description: Student may contact the instructor or department for information.

CPSY 8994 Research Problems in Child Psychology
1-6 credit(s), max credits 15, 15 completions allowed; prereq
Doctoral student or instr consent; Instructor: Gewirtz,Abigail
Description: Student may contact the instructor or department for information.

CPSY 8994 Research Problems in Child Psychology
1-6 credit(s), max credits 15, 15 completions allowed; prereq
Doctoral student or instr consent; Instructor: Reynolds,Arthur J.
Description: Student may contact the instructor or department for information.

CPSY 8994 Research Problems in Child Psychology
1-6 credit(s), max credits 15, 15 completions allowed; prereq
Doctoral student or instr consent; Instructor: Sera PhD,Maria D
Description: Student may contact the instructor or department for information.
CHN 1011 Beginning Modern Chinese
6 credit(s); Credit will not be granted if credit has been received for: CHN 4001; 
Instructor: Stone,Jin YaLiang
Description: Student may contact the instructor or department for information.

CHN 1011 Beginning Modern Chinese
6 credit(s); Credit will not be granted if credit has been received for: CHN 4001; 
Instructor: Quan,Jiahong
Description: This is the first semester of a two-semester sequence in first-year modern Standard Chinese (Mandarin) for undergraduate students who are non-heritage speakers of Chinese. Students are introduced to the sounds of Mandarin, basic grammar, vocabulary, and the Chinese writing system. The course consists of two lectures and five recitation classes per week. By the end of the first semester, students are expected to be able to write about 270 Chinese characters, recognize about 400 characters, conduct a basic conversation, read simple texts or conversations, and write some correct sentences in Chinese. Textbook: "Integrated Chinese," Level One, Part One, Tao-chung Yao, et. al., Cheng & Tsui Company / 1997
Style: 30% Lecture, 70% Discussion.
Grading: 10% mid exam, 15% final exam, 15% quizzes, 20% laboratory evaluation, 25% other evaluation. Homework: 15% Tests
Exam Format: Listening, reading, writing, and oral interview

CHN 1015 Accelerated Beginning Modern Chinese
5 credit(s); prereq Oral/aural skills or speaker of other Chinese dialect recommended credit will not be granted if credit received for: 1011 or 1012; 
Instructor: Stone,Jin YaLiang
Description: Prerequisite: instructor consent; credit will NOT be granted if credit received for: 1011 or 1012.; 5 cr Instructor: Stone, Jin This course is designed for heritage speakers of Chinese and for students who have the basic skill of speaking Chinese. The course will focus on standard pronunciation, reading, and writing, and spend less time on grammatical explanation. The lectures cover Chinese characters and sentence structures. In the drill session, we will practice the skills of listening comprehension, speaking, reading, and writing. Since this is an accelerated course, we will cover the whole of first-year Chinese within one semester, and the pace of the course will be approximately one lesson every two days. By the end of the semester, students should be able to make fluent conversations in Chinese, recognize 600 Chinese characters, write 500 of them, and read texts that are clear and straightforward. The course URL is: http://www.all.umn.edu/chinese_language/Courses/class_list.html Textbook: "Integrated Chinese", Level One, Part One and Part Two, by Tao-chung Yao, Yuehua Liu et al, published by Cheng & Tsui Company, 2nd Edition, 2005. Chinese Program URL: http://www.all.umn.edu/chinese_language Class time: 30% Lecture, 70% Discussion.
Exam Format: 10% Midterm, 25% Final; Tests: 15% midterm, 10% final
Grading: 10% Midterm, 25% Final
Exam Format: Writing, Reading, Listening, Speaking

CHN 3021 Intermediate Modern Chinese
5 credit(s); prereq 1012 or 1015 or equiv or instr consent; Credit will NOT be granted if credit has been received for: CHN 4003; 
Instructor: Li,Chi-Ping
Description: This is the first half of a two-semester sequence in second year modern standard Chinese (Mandarin). It is designed for students who have completed CHN 1012 or 1015 at the U of M, or the equivalent. It will help students improve their ability to understand, speak, read, and write Chinese, and particularly aims at helping students enlarge their vocabulary and learn more complex sentence structures. Students will also be trained to write good compositions to express their views. Those who have not completed CHN 1012 or 1015 at the U of M, but wish to enroll in this course, need the instructor's approval. Textbook: "Integrated Chinese", by Yuehua Liu, et al, Cheng & Tsui Company / 1997.

CHN 3021 Intermediate Modern Chinese
5 credit(s); prereq 1012 or 1015 or equiv or instr consent; Credit will NOT be granted if credit has been received for: CHN 4003; 
Instructor: Quan,Jiahong
Description: This is the second half of a two-semester sequence in second year modern standard Chinese (Mandarin). It is designed for students who have completed CHN 1012 or 1015 at the U of M, or the equivalent. It will help students improve their ability to understand, speak, read, and write Chinese, and particularly aims at helping students enlarge their vocabulary and learn more complex sentence structures. Students will also be trained to write good compositions to express their views. Those who have not completed CHN 1012 or 1015 at the U of M, but wish to enroll in this course, need the instructor's approval. Textbook: "Integrated Chinese", by Yuehua Liu, et al, Cheng & Tsui Company / 1997.
CHN 3031 Advanced Modern Chinese
4 credit(s); prereq 3022 or equiv or instr consent;
Instructor: Li,Chi-Ping
Description: CHN 3031 Advanced Modern Chinese
Prerequisite: 3022 or equiv or instructor consent, 4 credits. This course will be open to students who have completed two years of Chinese language curriculum at the University of Minnesota and the equivalent. The focus will be on improving reading skills, building vocabulary, mastering new sentence structures and expressing one’s ideas and opinions (especially about the readings) in both spoken and written Chinese. Both prepared and unprepared (spontaneous) responses to the written materials will be focused on in classroom sessions (i.e. memorization of short passages, sight reading and Q&A sessions). Teaching materials are all related to contemporary issues in China and a modern Chinese movie. We will attempt to develop a sense of spontaneity and confidence in dealing with the type of contingent situations confronted daily when one is in a foreign-language environment. To this end, significant stress will be placed on teaching students to use the Chinese they know as a tool for mastering the Chinese they don’t know. Textbook: All Things Considered (Advanced Reader of Modern Chinese). Edited by Chi-hing Chou, Yan Xia and Meow Hu Goh. Princeton University Press Movie: To Live (By Zhang YiMou)
Style: 25% Lecture, 55% Discussion, 5% Small Group Activities, 5% Student Presentation, 5% Demonstration, 5% Web Based.
Grading: 20% mid exam, 20% final exam, 20% written homework, 20% additional semester exams, 10% attendance, 10% class participation.

CHN 3201 Chinese Calligraphy
2 credit(s);
Instructor: Zhang, Hong
Description: A beginning course in Chinese Calligraphy. Chinese language background is NOT required. Lectures include introducing various Chinese Calligraphy techniques and exposing students to Chinese Calligraphy history and the cultural background in general. Students will be taught to develop a sense of self-cultivation through practicing the art of Chinese Calligraphy. Exercises in the class will give students hands-on experience of proper use of Chinese brush and ink to perform Chinese calligraphy. Students will also have the opportunity to write a complete calligraphy art piece in terms of Chinese Couplets, Chinese Poems. In addition, students will be taught to understand the literature and meaning of the calligraphy projects. The Calligraphy book is written by the instructor.
Style: 30% Lecture, 10% Discussion. Classroom exercises, with instructor’s coaching students individually.
Grading: 30% special projects, 30% written homework, 30% attendance, 10% class participation.

CHN 3290 Chinese Language Teaching Tutorial
S-N only, 1 credit(s), max credits 2; prereq Grade of A in 3032;
Instructor: Wang, Ling
Description: Student may contact the instructor or department for information.

CHN 4001 Beginning Modern Chinese
3 credit(s); prereq Grad student; Credit will not be granted if credit has been received for: CHN 1011;
Instructor: Jin,Ya Liang
Description: This is the first half of a two-semester sequence in second year modern standard Chinese (Mandarin). It is designed for students who have completed Chn 1012 or 1015 at the U of M, or the equivalent. It will help students improve their ability to understand, speak, read, and write Chinese, and particularly aims at helping students enlarge their vocabulary and learn more complex sentence structures. Students will also be trained to write good compositions to express their views. Those who have not completed Chn 1012 or 1015 at the U of M, but wish to enroll in this course, need the instructor's approval. Textbook: "Integrated Chinese", by Yuehua Liu, et al, Cheng & Tsui Company, 1997.

CHN 4003 Intermediate Modern Chinese
3 credit(s); prereq 4002, grad student; Credit will not be granted if credit has been received for: CHN 3021;
Instructor: Li, Chi-Ping
Description: This is the first half of a two-semester sequence in second year modern standard Chinese (Mandarin). It is designed for students who have completed Chn 1012 or 1015 at the U of M, or the equivalent. It will help students improve their ability to understand, speak, read, and write Chinese, and particularly aims at helping students enlarge their vocabulary and learn more complex sentence structures. Students will also be trained to write good compositions to express their views. Those who have not completed Chn 1012 or 1015 at the U of M, but wish to enroll in this course, need the instructor's approval. Textbook: "Integrated Chinese", by Yuehua Liu, et al, Cheng & Tsui Company, 1997.

CHN 4005 Accelerated Beginning Modern Chinese
3 credit(s); prereq Grad student, instr consent; oral/aural skills or other Chinese dialect recommended credit will not be granted if credit received for: 1011, 1012;
Instructor: Stone, Jin Yu Liang
Description: Prerequisite: instructor consent; credit will NOT be granted if credit received for: 1011 or 1012.; 5 or Instructor: Stone, Jin This course is designed for heritage speakers of Chinese and for students who have the basic skill of speaking Chinese. The course will focus on standard pronunciation, reading, and writing, and spend less time on grammatical explanation. The lectures cover Chinese characters and sentence structures. In the drill session, we will practice the skills of listening comprehension, speaking, reading, and writing. Since this is an accelerated course, we will cover the whole of first-year Chinese within one semester, and the pace of the course will be approximately one lesson every two days. By the end of the semester, students should be able to make fluent conversations in Chinese, recognize 600 Chinese characters, write 500 of them, and read texts that are clear and straightforward. The course URL is:
http://www.all.umn.edu/chinese_language/Courses/class_list.html
http://www.all.umn.edu/chinese_language/Class time: 30% lecture, 60% discussion, 10% Video and other multi-media Work load: 10 pages of reading per week, 2-3 pages of writing per semester, exam(s), written homework Grade: 10% attendance and class participation, 5% vocabulary quizzes, 15% quizzes and tests, 10% homework, 30% Mid-term, 30% Final. If you have any question regarding this course, please contact the instructor.
CHN 4007 Advanced Modern Chinese
3 credit(s); prereq 4044, grad student;
Instructor: Li, Chi-Ping
Description: CHN 3031 Advanced Modern Chinese
Prerequisite: 3022 or equiv or instructor consent, 4 credits. This course will be open to students who have completed two years of Chinese language curriculum at the University of Minnesota and the equivalent. The focus will be on improving reading skills, building vocabulary, mastering new sentence structures and expressing one’s ideas and opinions (especially about the readings) in both spoken and written Chinese. Both prepared and unprepared (spontaneous) responses to the written materials will be focused on in classroom sessions (i.e. memorization of short passages, sight reading and Q&A sessions). Teaching materials are all related to contemporary issues in China and a modern Chinese movie. We will attempt to develop a sense of spontaneity and confidence in dealing with the type of contingent situations confronted daily when one is in a foreign-language environment. To this end, significant stress will be placed on teaching students to use the Chinese they know as a tool for mastering the Chinese they don’t know.
Textbook: All Things Considered (Advanced Reader of Modern Chinese). Edited by Chi-h ping Chou, Yan Xia and Meow Hui Goh. Princeton University Press Movie: To Live (By Zhang Yimou)
Style: 25% Lecture, 55% Discussion, 5% Small Group Activities, 5% Student Presentation, 5% Demonstration, 5% Web Based.
Grading: 20% mid exam, 20% final exam, 20% written homework, 20% additional semester exams, 10% attendance, 10% class participation.

CHN 4041 Advanced Readings in Modern Chinese
4 credit(s); prereq 3032 or instr consent;
Instructor: Wang Ling
Description: This course will expose advanced students to various contemporary Chinese writings and improve their ability to read Chinese writings in the original and write articles in Chinese. The hope is that this will inspire students to further explore contemporary Chinese culture and society. In this course we will study Chinese writings of different styles in contemporary China, including short stories and essays written since 1948 to the present. These writings reflect Chinese society since the early 1950s. The course will also expose students to newly emerged Internet writing. The lectures and discussions will focus on the use of the language, the contents of the writings, and their reflection of contemporary Chinese society. At the same time, we will also try to explore the Chinese cultural and philosophical meanings found in those works. The course will be taught in Modern Standard Chinese (Mandarin). Reading Packet: ????????????????by Dr. Zou, Zhen (??Dinky Dome ??Paradigm Course Resource??) Course website: http://www.all.umn.edu/chinese_language/Courses/class_list.html Course Requirement: Pre-class preparation is critical in this course before each class; students are expected to study assigned readings. Please familiarize yourself with the new words of the reading text and try to answer the questions on the text so that you can contribute to class discussion. Grading Attendance and performance 10% Portfolio of articles ? 15% Quiz? 10% Homework? 15% Presentation? 10% Midterm? 10% Final? 15% Course paper? 15%

CHN 5040 Readings in Chinese Texts
A-F only, 3 credit(s), max credits 12, 4 completions allowed; prereq 4042 or equiv or instr consent;
Instructor: Zou, Zhen
Description: Prerequisite: 3-4 years of college Chinese or equivalent or instructor consent Instructor: Zou, Zhen In the fall semester, the contents of the Chinese 5040 course include contemporary Chinese short stories, novels, essays, and prose written since 1950 to the present, especially in the 1980s, 1990s, and 2000s, a peak time of Chinese literature since China’s reform and open to the world. These literary works explore various aspect of contemporary Chinese society, history, and culture, including social prejudices against the mentally and physically disadvantaged, the Anti-Rightist Movement, the Cultural Revolution, the drug problem, male-female relationship, education, parental love, traditional Chinese view of life, rape and sex, and hot issues discussed in Taiwan. Class discussion will focus on the use of the language, the social interpretation of the texts, and the Chinese cultural and philosophical messages found in those works. The course will be taught in standard Modern Chinese (Mandarin). Class time: 65% Discussion, 30% Lecture, 5% Lab, film and internet. Work load: 5-10 Pages of reading per week, quizzes, 2 exams, oral reading presentation, and a final essay. Grade: 15% class participation, 15% quizzes, 20% mid term exam, 20% final exam, 10% reading presentation, 20% final essay. Exam format: Short answers and essay questions. Course URL: http://www.all.umn.edu/chinese_language

CHN 5393 Directed Study
1-5 credit(s), max credits 18, 18 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: Allen, Joseph R
Description: Student may contact the instructor or department for information.

CHN 5393 Directed Study
1-5 credit(s), max credits 18, 18 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: Zou, Zhen
Description: Student may contact the instructor or department for information.

CHN 5393 Directed Study
1-5 credit(s), max credits 18, 18 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: McGrath, Jason
Description: Student may contact the instructor or department for information.

CHN 5393 Directed Study
1-5 credit(s), max credits 18, 18 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: Rouzer, Paul F
Description: Student may contact the instructor or department for information.

Civil Engineering
122 Civil Engineering Building

CE 1101 Civil Engineering Orientation
S-N only, 1 credit(s); prereq Lower div;
Instructor: LaPara, Timothy M
Description: Student may contact the instructor or department for information.

CE 3101 Computer Applications in Civil Engineering I
A-F only, 3 credit(s); prereq MATH 1272, PHYS 1301, CSE;
Instructor: Barnes, Randal J
Description: Student may contact the instructor or department for information.

CE 3102 Uncertainty and Decision Analysis in Civil Engineering
A-F only, 3 credit(s); prereq [MATH 1371, MATH 1372] or equiv;
Instructor: Davis, Gary Arnold
Description: Student may contact the instructor or department for information.

CE 3111 CADD for Civil Engineers
S-N only, 2 credit(s); prereq 3201;
Instructor: Johnson, Ann M
Description: Student may contact the instructor or department for information.
CE 3201 Transportation Engineering  
3 credit(s); prereq PHYS 1301, 3101, 3102;  
Instructor: Levinson, David M  
Description: Student may contact the instructor or department for information.

CE 3202 Surveying and Mapping  
A-F only, 2 credit(s); prereq MATH 1271, MATH 1272; [CSE or Construction Mgmt];  
Instructor: Johnson, Ann M  
Description: Theory of precision measurements of distance, elevation, angle, and direction of points and lines above, on, or beneath the earth's surface; establishing such points or lines. Elements of coordinate systems, datum planes, and maps.

CE 3301 Soil Mechanics I  
A-F only, 3 credit(s); prereq CSE, AEM 3031;  
Instructor: Detournay, Emmanuel Michel  
Description: Student may contact the instructor or department for information.

CE 3301 Soil Mechanics I  
A-F only, 3 credit(s); prereq CSE, AEM 3031;  
Instructor: Detournay, Emmanuel Michel  
Description: Student may contact the instructor or department for information.

CE 3401 Linear Structural Analysis  
A-F only, 3 credit(s); prereq Grade of at least C- in AEM 3031, CSE;  
Instructor: Stolarski, Henryk Konstanty  
Description: Student may contact the instructor or department for information.

CE 3402W Civil Engineering Materials  
A-F only, 3 credit(s); prereq Grade of at least C- in [AEM 3031 or BBE 5001], IT;  
Instructor: Detournay, Emmanuel Michel  
Description: Student may contact the instructor or department for information.

CE 3501 Environmental Engineering  
A-F only, 3 credit(s); prereq Chem 1022, Phys 1302;  
Meets CLE req of Environment;  
Instructor: Semmens, Michael John  
Description: Student may contact the instructor or department for information.

CE 3502 Fluid Mechanics  
A-F only, 4 credit(s); prereq [AEM 2012 or AEM 3031], Math 2373, [CSE or ForP major];  
Instructor: Hill, Kimberly M  
Description: Student may contact the instructor or department for information.

CE 3502 Fluid Mechanics  
A-F only, 4 credit(s); prereq [AEM 2012 or AEM 3031], Math 2373, [CSE or ForP major];  
Instructor: Hill, Kimberly M  
Description: Student may contact the instructor or department for information.

CE 4000H Honors Research Seminar  
A-F only, 1 credit(s), max credits 2; prereq Upper div CE;  
GEOE 4000H  
Instructor: Barnes, Randal J  
Description: Student may contact the instructor or department for information.

CE 4092H Honors Selected Reading  
A-F only, 1 credit(s), max credits 2; prereq Upper div CE;  
Credit will not be granted if credit has been received for: GEOE 4092H;  
Instructor: Barnes, Randal J  
Description: Student may contact the instructor or department for information.

CE 4094H Senior Honors Thesis  
A-F only, 2 credit(s); prereq Upper div CE;  
Credit will not be granted if credit has been received for: GEOE 4094H;  
Instructor: Barnes, Randal J  
Description: Student may contact the instructor or department for information.

CE 4101W Project Management  
3 credit(s); prereq [CE or construction management] student; prereq for 2010-11 acad yr only;  
Meets CLE req of Writing Intensive;  
Instructor: Eiler, Tim  
Description: Survey of broad areas in engineering project management and economics. Project planning, scheduling, and controlling; budgeting, staffing, task and cost control; communicating with, motivating, leading, and managing conflict among team members; engineering economics.

CE 4101W Project Management  
3 credit(s); prereq [CE or construction management] student; prereq for 2010-11 acad yr only;  
Meets CLE req of Writing Intensive;  
Instructor: Eiler, Cherie M  
Description: Survey of broad areas in engineering project management and economics. Project planning, scheduling, and controlling; budgeting, staffing, task and cost control; communicating with, motivating, leading, and managing conflict among team members; engineering economics.

CE 4102W Capstone Design  
A-F only, 4 credit(s); prereq 4301, 4401, 4501, 4502;  
Meets CLE req of Writing Intensive;  
Instructor: Eickenberg, Paul Thomas  
Description: Teams of 3 - 5 students solve civil engineering problems posed by practicing engineers (mentors). Student work progresses from problem description and formulation of objectives, through conceptual solutions, preliminary planning and analysis, design and environmental impact assessment, to feasibility plans and specifications, cost analysis, and recommendations. Each team makes three presentations. Draft reports and a final project report are reviewed.  
Style: 5% Lecture, 10% Discussion, 50% Small Group Activities, 20% Student Presentation, 10% Demonstration, 5% Guest Speakers. Team work on an engineering project  
Grading: 60% reports/papers, 5% attendance, 30% in-class presentation, 5% class participation.

CE 4102W Capstone Design  
A-F only, 4 credit(s); prereq 4301, 4401, 4501, 4502;  
Meets CLE req of Writing Intensive;  
Instructor: Stefan, Heinz G  
Description: Teams of 3 - 5 students solve civil engineering problems posed by practicing engineers (mentors). Student work progresses from problem description and formulation of objectives, through conceptual solutions, preliminary planning and analysis, design and environmental impact assessment, to feasibility plans and specifications, cost analysis, and recommendations. Each team makes three presentations. Draft reports and a final project report are reviewed.  
Style: 5% Lecture, 10% Discussion, 50% Small Group Activities, 20% Student Presentation, 10% Demonstration, 5% Guest Speakers. Team work on an engineering project  
Grading: 60% reports/papers, 5% attendance, 30% in-class presentation, 5% class participation.

CE 4190 Engineering Co-op Assignment  
S-N only, 2-6 credit(s), max credits 6, 1 completion allowed;  
prereq Upper div CE, approval of department co-op director;  
Instructor: Gulliver, John Stephen  
Description: Style: Industry work assignment  
Grading: 100% reports/papers.
CE 4251 Pavement Analysis, Design, and Rehabilitation
4 credit(s); prereq [3201, 3301, 3402, upper div CSE] or grad student or instr consent;
Instructor: Khazanovich, Lev
Description: Student may contact the instructor or department for information.

CE 4301 Soil Mechanics II
A-F only, 3 credit(s); prereq [[3301 or GeoE 3301, upper div CSE] or instr consent; Credit will not be granted if credit has been received for: GEOE 4301;
Instructor: Guzina, Bojan B
Description: Student may contact the instructor or department for information.

CE 4311 Rock Mechanics
A-F only, 4 credit(s); prereq 3301 or GeoE 3301 or instr consent;
Instructor: Labuz, Joseph F
Description: Student may contact the instructor or department for information.

CE 4351 Groundwater Mechanics
A-F only, 3 credit(s); prereq [3502, [upper div CSE or grad student]] or instr consent; Credit will not be granted if credit has been received for: GEOE 4351;
Instructor: Strack, Otto D
Description: Student may contact the instructor or department for information.

CE 4401 Steel and Reinforced Concrete Design
A-F only, 4 credit(s); prereq Grade of at least C- in 3401, Concurrent registration is required (or allowed) in 3402, [upper div CSE or grad student];
Instructor: French, Catherine Ellen
Description: Student may contact the instructor or department for information.

CE 4413 Steel Design II
A-F only, 3 credit(s); prereq [Grade of at least C- in 4401, [upper div CSE or grad student]] or instr consent; 4411 recommended;
Instructor: Shield, Carol K
Description: Student may contact the instructor or department for information.

CE 4501 Hydrologic Design
A-F only, 4 credit(s); prereq 3502;
Instructor: Mohseni, Omid
Description: Student may contact the instructor or department for information.

CE 5180 Special Topics
A-F only, 3 credit(s), max credits 4, 3 completions allowed;
prereq instr consent;
Instructor: Erdmann, John B
Description: Student may contact the instructor or department for information.

CE 5180 Special Topics
A-F only, 2 credit(s), max credits 4, 3 completions allowed;
prereq instr consent;
Instructor: Semmens, Michael John
Description: Student may contact the instructor or department for information.

CE 5180 Special Topics
A-F only, 2 credit(s), max credits 4, 3 completions allowed;
prereq instr consent;
Instructor: Mohan, Ned
Description: Student may contact the instructor or department for information.

CE 5214 Transportation Systems Analysis
4 credit(s); prereq 3201;
Instructor: Liu, Henry X.
Description: Student may contact the instructor or department for information.

CE 5411 Applied Structural Mechanics
A-F only, 3 credit(s); prereq [Grade of at least C- in 4401, [upper div CSE or grad student]] or instr consent;
Instructor: Stolarski, Henryk Konstanty
Description: Student may contact the instructor or department for information.

CE 5414 Prestressed Concrete Design
A-F only, 3 credit(s); prereq [Grade of at least C- in 4401, [upper div CSE or grad student]] or instr consent; 4412 recommended;
Instructor: Shield, Carol K
Description: Student may contact the instructor or department for information.

CE 5511 Urban Hydrology and Land Development
A-F only, 4 credit(s); prereq CE 4501;
Instructor: Gulliver, John Stephen
Description: Student may contact the instructor or department for information.

CE 5541 Environmental Water Chemistry
A-F only, 3 credit(s), max credits 4, 1 completion allowed;
prereq 3501, Chem 1021, Chem 1022;
Instructor: Arnold, Bill
Description: Water is critical component of environmental systems, and the chemistry that occurs in water is a rich subject.
This class focuses on water chemistry in both natural and engineered systems. Topics covered include acids and bases, titrations, the carbonate system, solubility of minerals, metal ion complexation, oxidation/reduction chemistry, chemistry in water treatment, nutrient cycling, organic matter, and organic pollutants. Both chemical equilibrium and chemical kinetics are explored. Students will be introduced to software that can be used to solve water chemistry problems. The class is targeted at seniors and graduate students.
Style: 100% Lecture.
Grading: 40% mid exam, 30% final exam, 30% written homework.
Exam Format: in class, closed book

CE 5551 Environmental Microbiology
A-F only, 3 credit(s); prereq [Upper div or grad] student;
Instructor: Novak, Paige J
Description: Student may contact the instructor or department for information.

CE 8200 Seminar: Transportation
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
Instructor: Davis, Gary Arnold
Description: Student may contact the instructor or department for information.

CE 8213 Advanced Transportation Technologies Seminar
S-N only, 1 credit(s); Credit will not be granted if credit has been received for: ME 8772;
Instructor: Donath, Max
Description:

CE 8214 Transportation Economics
A-F only, 4 credit(s);
Instructor: Levinson, David M
Description: CE8214: Transportation Economics applies microeconomic theory to transportation taking an agent-based, game theoretic framework. Topics include: demand and demand estimation, cost and cost estimation, pricing and investment, and regulation and deregulation. Applications cover both urban and intercity passenger transportation as well as freight transportation.
Style: 75% Lecture. 20% Discussion, 5% Guest Speakers.
Grading: 20% mid exam, 20% final exam, 20% reports/papers, 10% special projects, 10% written homework, 10% reflection
CE 8217 Transportation Network Analysis
A-F only, 4 credit(s);
Instructor: Liu, Henry X.
Description: Student may contact the instructor or department for information.

CE 8300 Seminar: Geomechanics
S-N only, 1-3 credit(s), max credits 4, 4 completions allowed;
Credit will not be granted if credit has been received for: GEOE 8300;
Instructor: Detournay, Emmanuel Michel
Description: Student may contact the instructor or department for information.

CE 8336 Boundary Element Methods I
A-F only, 3 credit(s); prereq CSE grad student; Credit will not be granted if credit has been received for: GEOE 8336;
Instructor: Mogilevskaya, Sofia
Description: Student may contact the instructor or department for information.

CE 8400 Seminar: Structures
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
Instructor: Schultz, Arturo Ernest
Description: Student may contact the instructor or department for information.

CE 8421 Structural Dynamics
A-F only, 3 credit(s); prereq [3401, AEM 2012] or instr consent; concurrent enrollment 4411 recommended;
Instructor: Wojtkiewicz Jr, Steven F
Description: Student may contact the instructor or department for information.

CE 8422 Earthquake Engineering
A-F only, 3 credit(s); prereq 8421 or instr consent;
Instructor: Schultz, Arturo Ernest
Description: Student may contact the instructor or department for information.

CE 8500 Environmental Seminar
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq grad CE major or instr consent;
Instructor: LaPara, Timothy M
Description: Student may contact the instructor or department for information.

CE 8505 Biological Processes
A-F only, 3 credit(s); prereq 4502, 4501 or instr consent;
Instructor: Hozalski, Raymond M
Description: Student may contact the instructor or department for information.

CE 8507 Advanced Methods in Hydrology
A-F only, 4 credit(s); prereq 8506;
Instructor: Foufoula, Efthimia
Description: Student may contact the instructor or department for information.

CE 8508 Ecological Fluid Mechanics
A-F only, 4 credit(s); prereq 3502 or equiv;
Instructor: Hondzo, Miki
Description: Student may contact the instructor or department for information.

CE 8551 Environmental Microbiology: Molecular Theory and Methods
A-F only, 4 credit(s); prereq 5551 or instr consent;
Instructor: LaPara, Timothy M
Description: Student may contact the instructor or department for information.

CE 8551 Environmental Microbiology: Molecular Theory and Methods
A-F only, 4 credit(s); prereq 5551 or instr consent;
Instructor: LaPara, Timothy M
Description: Student may contact the instructor or department for information.

Methods
A-F only, 4 credit(s); prereq 5551 or instr consent;
Instructor: LaPara, Timothy M
Description: Student may contact the instructor or department for information.

CE 8601 Introduction to Stream Restoration
A-F only, 3 credit(s);
Instructor: Paola, Chris
Description: Student may contact the instructor or department for information.

Classical Civilization
245 Nicholson Hall

CLCV 3081W Classical Epic in Translation
3 credit(s); prereq Classical Civilization major or instr consent; Credit will not be granted if credit has been received for: CLAS 3081W;
Instructor: Krevans, Nita
Description: This course will read and discuss four ancient epics: Homer's Iliad and Odyssey, Apollonius' Argonautica, and Virgil's Aeneid. Topics covered include the discovery of oral composition, the nature of the epic hero, the role of the gods, audiences for epic, epic and history, and the later epic tradition. Most of the course will focus on close reading of the poems, but we will also examine visual representations of the stories (ancient and modern) and view some films. This class is writing intensive: there are seven short papers, and weekly sections include work on writing techniques as well as discussion of the reading.
Style: 60% Lecture, 10% Film/Video, 15% Discussion, 15% Small Group Activities. Two lectures, one discussion each week

CLCV 3993 Directed Studies in Classical Civilization
1-4 credit(s), max credits 4, 1 completion allowed; prereq instr consent; Credit will not be granted if credit has been received for: CLAS 3993;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

CLCV 3994 Directed Research in Classical Civilization
1-4 credit(s), max credits 4, 1 completion allowed; prereq instr consent; Credit will not be granted if credit has been received for: CLAS 3994;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

Classical and Near Eastern Studies
245 Nicholson Hall

CNES 1002 World of Greece
3 credit(s); prereq credit will not be granted if credit received for: CLAS 1008; Meets CLE req of Historical Perspectives;
Instructor: STAFF
Description: This course will introduce students to the culture, art, history, literature, and philosophy of ancient Greece from Mycenaean times to the Hellenistic Age. What influences were there on Greek culture? How did Greek culture develop and change over time? What values were important to the Greeks? In various realms (art, architecture, literature, history, philosophy, poetry) the Greeks inspired and might even be said to have created Western civilization, to such an extent that their influence continues today. Attention will also be devoted to questions of how Greek innovation became so widespread, and how their influence continues today.
Grading: 30% mid exam, 40% final exam. 2 midterms, 1 final exam
CNES 1042 Greek and Roman Mythology
4 credit(s); Credit will not be granted if credit has been received for: CNES 1042H; Meets CLE req of Arts/Humanities;
Instructor: Krevans,Nita
Description: A survey of Greek and Roman mythology, including near eastern parallels and influences. We will use both ancient and modern primary sources to study the gods, heroes and monsters whose stories continue to influence the production of art and literature in the modern world. Readings include Greek tragedy, Homer, the epic of Gilgamesh, and Ovid, as well as extended excerpts from numerous ancient authors. Lectures include slides and film clips to permit an understanding of visual representations of the mythic world. Students will analyze a modern adaptation of a myth for their final project.
Style: 50% Lecture, 50% Discussion. two lectures and one seminar-style discussion each week This class has an associated evening film series; students who cannot make the seminar will examine thirteen such trials, taking them in chronological order and focusing on one each week. We will also learn by heart most of the commonly found roots of medical terms. Armed with this knowledge, you will have the skills and knowledge to "decode" or "translate" unfamiliar terms as you come upon them. In addition, you will also possess a solid base of vocabulary necessary for the study of, e.g. anatomy or physiology, you will learn how medical terms are constructed from Greek and Latin prefixes, roots, and suffixes. You will also learn to describe the main Greek and Roman myths and the major myths associated with them; --discuss plot, theme, and interpretation of several Greek and Roman myths; --discuss some of the major theories of myth interpretation; and --demonstrate a sensitivity to the possible definitions and uses of myth.
Grading: 35% final exam, 35% reports/papers, 30% quizzes.
Exam Format: Supervised, in-person (not online) exam.

CNES 1042H Honors Course: Greek and Roman Mythology
4 credit(s); Credit will not be granted if credit has been received for: CNES 1042; Meets CLE req of Arts/Humanities;
Instructor: Krevans,Nita
Description: A survey of Greek and Roman mythology, including near eastern parallels and influences. We will use both ancient and modern primary sources to study the gods, heroes and monsters whose stories continue to influence the production of art and literature in the modern world. Readings include Greek tragedy, Homer, the epic of Gilgamesh, and Ovid, as well as extended excerpts from numerous ancient authors. Lectures include slides and film clips to permit an understanding of visual representations of the mythic world. Students will analyze a modern adaptation of a myth for their final project.
Style: 50% Lecture, 50% Discussion. two lectures and one seminar-style discussion each week This class has an associated evening film series; students who cannot make the film times have other options for viewing.
Grading: 20% mid exam, 30% final exam, 15% reports/papers.
Exam Format: short answer/essay

CNES 1043 Introduction to Greek and Roman Archaeology
4 credit(s); prereq credit will not be granted if credit has been received for: CLAS 1043;
Instructor: Wells,Martin Gregory
Description: Student may contact the instructor or department for information.

CNES 1046 Technical Terminology for the Health Professions
3 credit(s); Credit will not be granted if credit has been received for: CLAS 1146;
Instructor: Willey,Andrew James
Description: This is a fully online section offered online through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Although only used in a specialized, technical environment, medical terminology is nevertheless a vocabulary in its own right, with its own history and rules of morphology (word-formation). This course emphasizes linguistics and etymology. Rather than attempt to impart all the specialized vocabulary necessary for the study of, e.g. anatomy or physiology, you will learn how medical terms are constructed from Greek and Latin prefixes, roots, and suffixes. You will also learn to describe the main Greek and Roman myths and the major myths associated with them; --discuss plot, theme, and interpretation of several Greek and Roman myths; --discuss some of the major theories of myth interpretation; and --demonstrate a sensitivity to the possible definitions and uses of myth.
Grading: 40% final exam, 60% quizzes. Quizzes: 350 possible points* Exam: 115 possible points *Only the 14 best quizzes are counted towards the final grade (the lowest score is dropped); if only 14 quizzes are submitted, all are counted. See the syllabus for more information.
Exam Format: Supervised, in-person (not online) exam.

CNES 1201 The Bible: Context and Interpretation
3 credit(s); Credit will not be granted if credit has been received for: RELS 3201; Meets CLE req of Literature;
Instructor: STAFF
Description: Where did the Hebrew Bible ("Old Testament") come from? In what way do the worldviews and traditions expressed by its ancient authors compare with those of the superpowers of their day, including the Canaanites (from Ugarit), the Hittites, the Egyptians, and the Mesopotamians? How did the text of the Hebrew Bible come to represent a millennium of beliefs, desires, and customs from ancient Israel and Judah, many of which still reverberate in our society today? Integrating a cross-disciplinary spectrum of religion, history, and literature, students in this class will read, analyze, and interpret Hebrew Bible texts in English, using methods employed by biblical scholars. This class fulfills the Liberal Education Requirement of Literature because in it students read the Hebrew Bible as ancient literature, asking questions about language and meaning, literary effects, and the Hebrew Bible's social and historical contexts. Since we will engage in secular study only, analytically examining all relevant religious texts and traditions, students are required to have an open mind and willingness to read and discuss the Bible in a new way.

CNES 1903 Freshman Seminar: Famous Trials
3 credit(s); prereq Fr; Meets CLE req of Civic Life and Ethics;
Instructor: Sheets,George A
Description: Trials are formal occasions in which societies publicize and validate their normative conceptions of right and wrong. Often the specific factual and legal questions raised by a trial are merely the tip of an iceberg of larger social and political issues that are seen to be at stake. Sometimes trials can become famous (or infamous) after they have occurred (sometimes long after) because their results come to be interpreted as milestones in the narratives of history. This seminar will examine thirteen such trials, taking them in chronological order and focusing on one each week. We will
examine the trial events themselves: the parties, the arguments on each side, the verdicts; as well as the legal, social, and political contexts of each trial. In addition, we will consider each trial's historical significance. Since many of the trials we will be examining have been made the subject of films and other works of art, our weekly classes will often include a representative video clip. The trials tentatively selected for study are: the trial of Socrates on various charges, the trial of Jesus on uncertain charges, the trial of Thomas More for treason, the trial of Galileo for heresy, the Salem witchcraft trials, the trial of Captain Preston and other British soldiers for the Boston massacre, the trial concerning property interests in the slave ship Amistad, the trial of Susan B. Anthony for voting illegally as a woman, the trial of anarchists for rioting in the Chicago Haymarket, the murder trial of Leo Frank, the murder trial of Leopold and Loeb, the Nuremberg trials, crimes against humanity and other charges.

Style: 25% Lecture, 25% Film/Video, 50% Discussion.
Grading: 30% special projects, 60% reflection paper, 10% class participation.

CNES 3008 History of Ancient Art
4 credit(s); Credit will not be granted if credit has been received for: ARTH 3008;
Instructor: Cooper, Frederick A
Description: The purpose of this course is to offer an introduction to the visual arts of those ancient cultures which contributed to the development of western civilization; namely, Egyptian, Babylonian, Assyrian, Phoenician, Aegean, Etruscan, Roman, and Early Christian/Byzantine. The lectures will focus on a selection of important works, but will include discussions of appreciation and style as well as the larger social, religious and visual ideas of early cultures. The requirements of the course are geared for students with no previous experience or study in this discipline.
Style: 80% Lecture, 10% Discussion, 10% Field Trips, review sessions; museum discussion.
Grading: 33% mid exam, 33% final exam, 33% reports/papers.

CNES 3071 Greek and Hellenistic Religions
3 credit(s); Credit will not be granted if credit has been received for: CNES 5071;
Instructor: Sellin, Philip
Description: A survey of ancient Greek religion from the Bronze Age down to Hellenistic times. The approach is both historical and thematic. Topics include pre-historic religion; Homer and the Olympian deities; archaeology of cult; music, dance, and procession as ritual performance; prayer and sacrifice; temple architecture and sanctuaries; oracles; beliefs about death and the afterlife; mystery cults; philosophical religion; criticism of traditional myths; Alexander and ruler cult; astrology and magic; and Near Eastern salvation religions. We pose questions of Greek tragedy and comedy, satire and pious hymnody. Extensive use of Homer, Sappho, Pindar, Aeschylus, Euripides, and Plato allows us to hear distinct voices within the overall Greek social and religious variety. We study the use of architectural space to define and express divisions between sacred and profane. The visual arts are of central importance, to help us both `see' these foreign or familiar gods and goddesses, heroes and heroines, as well as `query' the ordering principles they represent. Sculpture, vase painting, gems, and coins are all brought into the picture.
Style: 85% Lecture, 10% Discussion, 5% Field Trips.
Grading: 15% mid exam, 20% final exam, 45% reports/papers, 5% special projects, 15% additional semester exams.
Exam Format: Brief IDs and short answer questions; one essay.

CNES 3081W Classical Epic in Translation
3 credit(s); Credit will not be granted if credit has been received for: CLAS 3081W; Meets CLE req of Literature;
Instructor: Krevars, Nita
Description: This course will read and discuss four ancient epics: Homer's Iliad and Odyssey, Apollonius' Argonautica, and Virgil's Aeneid. Topics covered include the discovery of oral composition, the nature of the epic tradition, the role of the gods, audiences for epic, epic and history, and the later epic tradition.

Most of the course will focus on close reading of the poems, but we will also examine visual representations of the stories (ancient and modern) and view some films. This class is writing intensive; there are seven short papers, and weekly sections include work on writing techniques as well as discussion of the readings.
Style: 60% Lecture, 10% Film/Video, 15% Discussion, 15% Small Group Activities. Two lectures, one discussion each week.

CNES 3109 The Age of Justinian and Muhammad (c.500-c.700 A.D.)
3 credit(s); Credit will not be granted if credit has been received for: RELS 3542;
Instructor: Nicholson, Oliver
Description: This is not a course about Islam. It is not even a course about Islamic origins. Rather it considers the kaleidoscope of civilizations which immediately preceded the Roman Empire in the 6th and 7th centuries A.D. We start in the Eastern Mediterranean with the Golden Age of the Early Byzantine Empire under Justinian (527-65), codifier of Roman law, builder of the Hagia Sophia at Constantinople, ‘the most interesting building in the world'. We go on to consider the 120 years of superpower struggle which the Byzantines had with their neighbours in the Persian Empire and also the attempts of Justinian to reclaim for the Byzantines the lost Roman lands around the Western Mediterranean. This will lead to a look at former Roman territory in Western Europe now ruled by Germanic kings, especially Anglo-Saxon England as described by the Venerable Bede, before we come back to the Levant to examine the impact on Byzantium and Persia of Arab invasion and the first century of the Islamic Caliphate. All this will be studied so far as possible in sources written at the time, so that we come to understand not only the pattern of events, but also what people from vastly various worlds thought about them. This is cultural diversity indeed.
Style: 80% Lecture, 20% Discussion.
Grading: 40% mid exam, 60% final exam.
Exam Format: “Gobbets” (passages from ancient sources set for comment).

CNES 3142 Art of Egypt
4 credit(s); Credit will not be granted if credit has been received for: ARTH 3142;
Instructor: Canepa PhD, Matthew P.
Description: Student may contact the instructor or department for information.

CNES 3201 The Bible: Context and Interpretation
3 credit(s); Prereq: Knowledge of Hebrew not required; Credit will not be granted if credit has been received for: RELS 3201; Meets CLE req of Literature;
Instructor: Staff
Description: The course attempts to “get behind” the overlay imposed by modern culture upon the Old Testament/Hebrew Bible and to read it on its own terms. In order to do so, students will explore the fascinating literature and religion of the ancient Near East. We will read texts from ancient Mesopotamia, Canaan (Ugarit), and Israel, and discuss both the ideas found in them and their literary artistry. After investigating the literature of Israel's neighbors, we will read biblical literature in dialogue with these stories, intellectually analyzing the narratives of the creation of the world, the origin of life, the great flood story, the idea of divine revelation, and the significance of law. Specific topics to be dealt with include: God, creation, fate, the point of human life, and the meaning of history. The course teaches students how to read closely and to think critically about the meaning of a text. Students will be asked to read primary sources for specific questions of content and meaning, frequently with the help of assignment sheets, and to learn a methodology for deciding between right and wrong answers. The skills thereby learned will assist students with any other course in the Liberal Arts. The assumptions of the course are academic and secular, as required by the First Amendment. All texts and all religious traditions will be examined analytically.

CNES 3951W Major Project

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
4 credit(s); prereq Three 3xxx ANE courses, [major in ANE or CNEA or RelS], instr consent ; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

CNES 5071 Greek and Hellenistic Religions
3 credit(s); prereq instr consent ; Credit will not be granted if credit has been received for: CNES 3071;
Instructor: Sellow,Philip
Description: A survey of ancient Greek religion from the Bronze Age down to Hellenistic times. The approach is both historical and thematic. Sources include literature, art, and archeology. Topics include pre-historic religion; Homer and the Olympian deities; archeology of cult; music, dance, and procession as ritual performance; prayer and sacrifice; temple architecture and sanctuaries; oracles; beliefs about death and the afterlife; mystery cults; philosophical religion; criticism of traditional myths; Alexander and ruler cult; astrology and magic; and Near Eastern salvation religions. Registration in 5071 is intended for graduate students, though some specially qualified undergraduates may be admitted. There is a required weekly discussion section.
Style: 60% Lecture, 30% Discussion, 5% Field Trips.
Grading: 20% midterm exam, 20% final exam, 30% reports/papers, 10% in-class presentation, 20% class participation.
Exam Format: Short answers and two essays.

CNES 5081W Classical Epic in Translation
3 credit(s); prereq Grad student or instr consent ; Credit will not be granted if credit has been received for: CLAS 3081W;
Meets CLE req of Writing Intensive;
Instructor: Krevans,Nita
Description: This course will read and discuss four ancient epics: Homer's Iliad and Odyssey, Apollonius' Argonautica, and Virgil's Aeneid. Topics covered include the discovery of oral composition, the nature of the epic hero, the role of the gods, audiences for epic, epic and history, and the later epic tradition. Most of the course will focus on close reading of the poems, but we will also examine visual representations of the stories (ancient and modern) and view some films. This class is writing intensive: there are several short papers, and weekly sections include work on writing techniques as well as discussion of the reading.
Style: 60% Lecture, 10% Film/Video, 15% Discussion, 15% Small Group Activities. Two lectures, one discussion each week.

CNES 5108 Greek Architecture
3 credit(s); prereq Jr. Cls/ArH 3008 or instr consent ; Credit will not be granted if credit has been received for: ARTH 5108;
Instructor: Cooper,Frederick A
Description: The course elaborates those distinctive and universal characteristics of Greek architecture which occur during the period circa 1050 B.C. to 40 B.C. An overall view of the development of Greek architecture will preface a discussion of the place and role of sanctuaries and civic centers in Greek life and thought. Special problems and architectural features are covered by supplementary lectures. A revised edition of the Oxford text on Greek architecture is supplemented by readings from out of print handbooks. The course is appropriate for students having an interest or background in ancient art, archaeology, or the history of architecture.
Style: 60% Lecture, 30% Discussion. profile of molding
Grading: 20% midterm exam, 20% final exam, 40% reports/papers, 10% in-class presentation, 10% class participation.
Exam Format: short term ID's

CNES 5794 Introduction to Classical and Near Eastern Studies
S-N only, 1 credit(s); prereq grad major or minor or instr consent;
Instructor: Krevans,Nita
Description: Student may contact the instructor or department for information.

CNES 5993 Directed Studies
1-4 credit(s), max credits 12, 4 completions allowed; prereq instr consent , dept consent , college consent ;
Instructor: Sellow,Philip
Description: Student may contact the instructor or department for information.

CNES 5996 Directed Instruction
1-12 credit(s), max credits 12, 1 completion allowed; prereq instr consent, dept consent, college consent ;
Instructor: Jassen,Alex P
Description: Student may contact the instructor or department for information.

Clinical Laboratory Science
D-242 Mayo (Box 609 UMHC)

CLS 5090 Special Laboratory Methods
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed; prereq instr consent; 
Instructor: Wells,Carol Lee
Description: Student may contact the instructor or department for information.

CLS 5103 Diagnostic Microbiology: Laboratory
A-F only, 2 credit(s); prereq One microbiology course with lab, one biochemistry course, instr consent ;
Instructor: Khoury,Nicole Zitterkopf
Description: Student may contact the instructor or department for information.

CLS 5120 Seminar: Clinical Laboratory Science
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq instr consent; 
Instructor: Panoskaltzis-Mortari PhD,Angela
Description: Student may contact the instructor or department for information.

CLS 5121 Journal Presentations
S-N only, 1 credit(s), max credits 2; prereq 1st yr CLS grad student; 
Instructor: Panoskaltzis-Mortari PhD,Angela
Description: Student may contact the instructor or department for information.

CLS 5201 Hematology I: Basic Techniques
A-F only, 3 credit(s); prereq instr consent ; 
Instructor: Swinehart,Cheryl D
Description: Student may contact the instructor or department for information.

CLS 5301 Urinalysis
A-F only, 1 credit(s); prereq instr consent ; 
Instructor: Spannaus-Martin,Donna J
Description: Student may contact the instructor or department for information.

CLS 5302 Clinical Chemistry I: Lecture and Lab
A-F only, 3 credit(s); prereq Two organic chem courses with lab, one biochem course, instr consent ; 
Instructor: Brunzel,Nancy A
Description: Student may contact the instructor or department for information.

CLS 5402 Molecular Diagnostics
A-F only, 1 credit(s); prereq instr consent ; 
Instructor: Wiesner,Stephen Michael
Description: Student may contact the instructor or department for information.

CLS 5768 Advanced Hematology
A-F only, 5-10 credit(s), max credits 30, 6 completions allowed; prereq instr consent ;

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
Instructor: Larsen,Karen B  
Description: Student may contact the instructor or department for information.

**CLS 8193 Advanced Topics in Clinical Chemistry**  
2 credit(s); prereq instr consent;  
Instructor: Tsai,Michael Y  
Description: Student may contact the instructor or department for information.

**CLS 8194 Research on Clinical Laboratory Problems**  
1-3 credit(s), max credits 3, 1 completion allowed; prereq instr consent;  
Instructor: Panoskaltsis-Mortari PhD,Angela  
Description: Student may contact the instructor or department for information.

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**Clinical Laboratory Sciences Program**  
15-170 Phillips Wangensteen Bldg (MMC 711)

**CLS 1010 Orientation in Clinical Laboratory Sciences**  
S-N only, 1 credit(s); prereq dept consent ;  
Instructor: Spannaus-Martin,Donna J  
Description: Student may contact the instructor or department for information.

**CLS 4092 Honors Program: Laboratory Methods**  
3 credit(s); prereq instr consent;  
Instructor: Spannaus-Martin,Donna J  
Description: Student may contact the instructor or department for information.

**CLS 4102 Principles of Diagnostic Microbiology**  
A-F only, 2 credit(s); prereq One microbiology course with lab, one biochem course, enrolled CLSP student, instr consent ;  
Instructor: Spannaus-Martin,Donna J  
Description: Student may contact the instructor or department for information.

**CLS 4103 Diagnostic Microbiology: Laboratory**  
A-F only, 2 credit(s); prereq One microbiology course with lab, one biochem course, enrolled CLSP student, instr consent ;  
Instructor: Khoury,Nicole Zitterkopf  
Description: Student may contact the instructor or department for information.

**CLS 4201 Hematology I**  
A-F only, 3 credit(s); prereq Enrolled CLSP, instr consent ;  
Instructor: Swinehart,Cheryl D  
Description: This course will include the theory and application of the basic principles and techniques in clinical hematology and hemostasis. There will be both lecture and laboratory sessions. Students who have been admitted to the professional program in medical technology are eligible for this course.  
Style: 33% Lecture, 67% Laboratory.  
Exam Format: Multiple choice

**CLS 4302 Clinical Chemistry I: Lecture and Lab**  
A-F only, 3 credit(s); prereq Two organic chem courses with lab, one biochem course, instr consent ;  
Instructor: Brunzel,Nancy A  
Description: Student may contact the instructor or department for information.

**CLS 4401 Immunology**  
A-F only, 1 credit(s), max credits 2; prereq BIOC 3021, instr consent ;  
Instructor: Wiesner,Stephen Michael  
Description: Student may contact the instructor or department for information.

**CLS 4402 Molecular Diagnostics**  
A-F only, 2 credit(s), max credits 4;  
Instructor: Wiesner,Stephen Michael  
Description: Student may contact the instructor or department for information.

**CLS 4602 Basic Concepts in Education and Research as Applied to the Clinical Laboratory**  
A-F only, 1 credit(s); prereq instr consent ;  
Instructor: Spannaus-Martin,Donna J  
Description: Student may contact the instructor or department for information.

**CLS 4701 Applied Diagnostic Microbiology**  
S-N only, 2 credit(s); prereq 4102, 4101 enrolled CLSP student, instr consent ;  
Instructor: Brennecke,Patricia Johnson  
Description: Student may contact the instructor or department for information.

**CLS 4702 Applied Clinical Hematology/Hemostasis**  
S-N only, 2 credit(s); prereq 4201, 4202, 4203, enrolled CLSP student, instr consent ;  
Instructor: Swinehart,Cheryl D  
Description: The rotation is designed to: Provide comprehensive training in the techniques of hematology—including blood drawing, morphology, instrumentation, and body fluids. Special techniques in hemostasis and special hematology stains and morphology will also be covered. Target audience: Medical technology students who have completed their senior courses. Rotations are scheduled at various hospital/clinical sites.

**CLS 4703 Applied Clinical Chemistry and Urinalysis**  
S-N only, 2 credit(s); prereq 4301, 4302, 4304, 4305, enrolled CLSP student, instr consent ;  
Instructor: STAFF  
Description: Application of basic methods and techniques in the clinical chemistry lab. Upon completion of the chemistry rotation, the student will be able to: Organize and take responsibility for the performance of selected methods. Perform the procedure with limited supervision, maintain accurate records, while following all prescribed laboratory safety procedures, recognize signs of instrument malfunction, perform necessary corrective measures, and clean up area. Obtain appropriate blood samples by venipuncture. Handle specimens properly once they are received in the laboratory. Understand the principles of clinical chemistry methods presented during the course. Describe the principles of instruments covered during the course. Understand the clinical usefulness of laboratory results. Perform routine urinalysis according to laboratory protocol. Target audience: medical technology students after they have completed their senior medical technology courses. Course is scheduled at various clinical/hospital sites.  
Style: 100% Laboratory.  
Grading: 5% in-class presentation, 95% laboratory evaluation.

**CLS 4704 Applied Transfusion Medicine**  
S-N only, 2 credit(s); prereq 4501, 4502, enrolled CLSP student, instr consent ;  
Instructor: Brennecke,Patricia Johnson  
Description: Student may contact the instructor or department for information.

**CLS 4705 Specialty Rotation**
S-N only, 1 credit(s); prereq Enrollment in CLS program;
Instructor: Brennecce, Patricia Johnson
Description: Student may contact the instructor or department for information.

Cognitive Science
205 Elliott Hall

CGSC 8410 Perspectives in Learning, Perception, and Cognition
S-N only, 2 credit(s), max credits 24, 12 completions allowed;
Instructor: Gershenson, Celia Wolk
Description: Course Objectives/Goals: The objectives of the course are to provide exposure to current knowledge in the many-faceted field of cognitive sciences. The weekly presentations are designed to encompass the wide range of research areas that comprise the cognitive sciences. Class Structure: The course is in the form of a colloquium series. Each session consists of a 40-50 minute presentation followed by a question and discussion period. Course Requirements: Enrolled students are required to attend all colloquia, read references provided, (the references of which available online at http://www.cogsci.umn.edu/calendar/colloquia.htm), and actively participate in discussion sessions. Students will submit a five to six page paper at the end of the semester in lieu of a final examination.

College of Food, Agri & Natural Resource Sciences

CFAN 1201 Discovering Majors and Careers
A-F only, 1 credit(s);
Instructor: Hruska, Elizabeth Suzanne
Description: Description: Are you anxious or stressed about making career decisions or settling in an appropriate major? Would you like to investigate career and major options in more detail and how they relate to your personality, strengths, values and skills? Discovering Majors and Careers Course is a course that can help you learn more about your skills, values, interests, strengths and personality. Then learn about how you can use your major to find a career you’ll enjoy. We’ll also introduce you to many of the resources available on campus, and help you explore the ways internships, community service, work experience, and travel can impact your future success. The goal of the class is to help you be proactive about the future and learn strategies that will help with a lifetime of decision making.
Style: 30% Lecture, 30% Discussion, 30% Small Group Activities, 5% Student Presentation, 5% Guest Speakers.

CFAN 1901 Topics: Freshman Seminar: Eval Starvation: Revisiting Malthus in Biotech Era
A-F only, 3 credit(s), max credits 3, 1 completion allowed;
prereq freshman; Meets CLE req of Environment;
Instructor: Porter, Paul M
Description: Student may contact the instructor or department for information.

CFAN 1902 Topics: Freshman Seminar: Ways of Knowing and Science
3 credit(s); prereq freshman; Meets CLE req of Diversity and Soc Justice US;
Instructor: Lorenz, Karl W
Description: Every human society has developed its own knowledge of food and health relationships. But until very recently, scientific researchers at large Universities have paid little attention to this knowledge, in part because it has been dismissed as "unscientific". Most professional scientists do not accept indigenous, ancestral or ancient knowledge systems as valid. When such knowledge is considered, it is studied through the lens of "science" to determine its legitimacy. Diverse food practices and understandings may be acknowledged as cultural artifacts, but are seldom seen by scientists as legitimate on their own merit. In this seminar, we will attempt to take a more culturally competent "inside look" at diverse ways of knowing. Experience is often the best teacher. By direct experience and involvement with another culture, we come to recognize their cultural worldview and its way of seeing and making sense of the world. In this way, you will encounter different ways of knowing. We will focus specifically on different cultural orientations to understanding food and health relationships. We will explore Indigenous knowledges, Ayurveda, Chinese Medicine, western/biomedical and African American perspectives. Each of these "ways of knowing" is grounded in distinct and divergent ancestral and cultural orientations. We will experience and explore these systems through field trips and invited speakers. Accordingly, class time will be re-formed into field trips and on-site learning experiences. All students are expected to attend these field trips or to make other arrangements mutually agreeable with the faculty. Field trip learning experiences will form the basis for assignments. Over the semester, you will be asked to complete: two writing assignments where you will write on a health-related issue of your choice, but from within the perspective being studied; one report based on an individual "practicum" experience (clinic visit, concert, etc) in one of the orientations being explored; one group presentation of 15-20 minutes involving 3-4 students addressing an issue identified by a community as important. This issue will be identified within the the first few weeks of class, and groups will work on research/preparation of the presentation so that they can present later in the semester.

CFAN 1905 Topics: Freshman Seminar: Antioxidants: How do they protect your food & body?
A-F only, 2 credit(s), max credits 3, 1 completion allowed;
prereq Fr;
Instructor: Csallany, A Saari
Description: Student may contact the instructor or department for information.

CFAN 1942 Topics: Freshman Seminar: By the Harvest You Shall Live
A-F only, 3 credit(s); prereq Fr; Meets CLE req of Technology and Society;
Instructor: Cardwell, Vernon Bruce
Description: Student may contact the instructor or department for information.

CFAN 3000 Directed Studies in International Agriculture
A-F only, 2-4 credit(s), max credits 8, 3 completions allowed;
prereq instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

CFAN 3100H Honors Experience
A-F only, 2-3 credit(s), max credits 6; prereq instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

CFAN 3201 Strategic Career Planning
A-F only, 1 credit(s); prereq Soph or Jr or Sr or grad student credit will not be granted if credit received for: 3201;
Instructor: Conlin Peterson, Mary Elizabeth
Description: Want to get ahead of the competition when searching for jobs and internships? This 1 credit course is ideal for undergraduate and graduate students in any major seeking internships and/or full time work. This course covers topics that will prepare you for your job/internship search including skills assessment, resume writing, interviewing, job searching and salary negotiation.
Grading: 25% reports/papers, 50% special projects, 10% class participation, 15% other evaluation. Inventories and Class Activities

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
CFAN 3201 Strategic Career Planning
A-F only, 1 credit(s); prereq Soph or jr or sr or grad student credit will not be granted if credit received for: 3201;
Instructor: Hanson, Matthew R
Description: Want to get ahead of the competition when searching for jobs and internships? This 1 credit course is ideal for undergraduate and graduate students in any major seeking internships and/or full time work. This course covers topics that will prepare you for your job/internship search including skills assessment, resume writing, interviewing, job searching and salary negotiation.
Style: 65% Lecture, 10% Discussion. Class Activities Grading: 25% reports/papers, 50% special projects, 10% class participation, 15% other evaluation. Inventories & class activities

CFAN 3201 Strategic Career Planning
A-F only, 1 credit(s); prereq Soph or jr or sr or grad student credit will not be granted if credit received for: 3201;
Instructor: Reile, Lucy
Description: Want to get ahead of the competition when searching for jobs and internships? This 1 credit course is ideal for undergraduate and graduate students in any major seeking internships and/or full time work. This course covers topics that will prepare you for your job/internship search including skills assessment, resume writing, interviewing, job searching and salary negotiation.
Grading: 25% reports/papers, 50% special projects, 10% class participation, 15% other evaluation. Inventories & Class Activities

CFAN 3480 Topics in CFANS: Grad & Prof School Prep Strategies for STEM Majors
1 credit(s), max credits 8;
Instructor: Starr, Kelly
Description: Student may contact the instructor or department for information.

CFAN 3480 Topics in CFANS: Dean's Engaged Leaders Seminar
3 credit(s), max credits 8;
Instructor: Toner, Brandy Marie
Description: Student may contact the instructor or department for information.

CFAN 3480 Topics in CFANS: Food and Chemistry
1 credit(s), max credits 8;
Instructor: Marquart, Len
Description: Student may contact the instructor or department for information.

CFAN 3480 Topics in CFANS: Oil and Water
3 credit(s), max credits 8;
Instructor: Gilmer, Robert Andrew
Description: In the wake of the largest environmental disaster in United States history, this course explores the many problems and paradoxes associated with the Deepwater Horizon Oil Spill. Water, and specifically the waters that flow down the Mississippi River from Minnesota to the Gulf of Mexico, is what makes possible the large deposits of oil found in and around the Mississippi Delta. Over millions of years the organic matter carried and broken down by the river combined with dead algae and plankton in the Gulf, ultimately creating the oil deposits off the coast of Louisiana. But while water and wetlands play a key role in the production of oil, when that oil spills it causes widespread destruction to plant and animal life throughout the region. By exploring the history and ecology of oil drilling in the Gulf this course will raise questions about the economic, environmental, and social impact of the Deepwater Horizon Oil Spill on communities throughout the Gulf region. If oil drilling is potentially so dangerous to the region, why do many local politicians and citizens demand that it continue? While the oil spill has wreaked havoc on the local fishing industry, can it survive without offshore drilling? What lessons can we learn from past spills about the environmental and economic impacts facing the Gulf region? Who is ultimately responsible for the spill, and who is liable for the costs associated with cleanup, restoration, and economic damages? Do laws such as the Oil Protection Act of 1990, which were intended to hold oil companies responsible for the effects of spills, actually empower them over the government when large-scale spills do occur?

CFAN 3480 Topics in CFANS: The Environment and Chemistry
1 credit(s), max credits 8;
Instructor: Toner, Brandy Marie
Description: Student may contact the instructor or department for information.

CFAN 3480 Topics in CFANS: The Environment and chemistry
1 credit(s), max credits 8;
Instructor: STAFF
Description: This agro-forestry course offers a balance between scientific background information and hands-on experiences. The environments explored range from high- to low-elevation forests and from conventional high-input farms to sustainable organic and bird-friendly coffee, cocoa and banana plantations. Students learn about payment for environmental services, certification of forest products, ecotourism, and other environmental programs using coffee systems and natural and managed forests as examples. Estimated costs $2,800. Dr. Dean Current leads this group to Costa Rica. Dates of travel are: January 6 to January 20, 2008.

CFAN 3480 Topics in CFANS: Food and Chemistry
1 credit(s), max credits 8;
Instructor: Gilmer, Robert Andrew
Description: In the wake of the largest environmental disaster in United States history, this course explores the many problems and paradoxes associated with the Deepwater Horizon Oil Spill. Water, and specifically the waters that flow down the Mississippi River from Minnesota to the Gulf of Mexico, is what makes possible the large deposits of oil found in and around the Mississippi Delta. Over millions of years the organic matter carried and broken down by the river combined with dead algae and plankton in the Gulf, ultimately creating the oil deposits off the coast of Louisiana. But while water and wetlands play a key role in the production of oil, when that oil spills it causes widespread destruction to plant and animal life throughout the region. By exploring the history and ecology of oil drilling in the Gulf this course will raise questions about the economic, environmental, and social impact of the Deepwater Horizon Oil Spill on communities throughout the Gulf region. If oil drilling is potentially so dangerous to the region, why do many local politicians and citizens demand that it continue? While the oil spill has wreaked havoc on the local fishing industry, can it survive without offshore drilling? What lessons can we learn from past spills about the environmental and economic impacts facing the Gulf region? Who is ultimately responsible for the spill, and who is liable for the costs associated with cleanup, restoration, and economic damages? Do laws such as the Oil Protection Act of 1990, which were intended to hold oil companies responsible for the effects of spills, actually empower them over the government when large-scale spills do occur?

CFAN 3480 Topics in CFANS: The Environment and Chemistry
1 credit(s), max credits 8;
Instructor: John Robert
Description: This agro-forestry course offers a balance between scientific background information and hands-on experiences. The environments explored range from high- to low-elevation forests and from conventional high-input farms to sustainable organic and bird-friendly coffee, cocoa and banana plantations. Students learn about payment for environmental services, certification of forest products, ecotourism, and other environmental programs using coffee systems and natural and managed forests as examples. Estimated costs $2,800. Dr. Dean Current leads this group to Costa Rica. Dates of travel are: January 6 to January 20, 2008.

CFAN 3480 Topics in CFANS: Dean's Engaged Leaders Seminar
3 credit(s), max credits 8;
Instructor: McGall, Dr. Willie
Description: Student may contact the instructor or department for information.

CFAN 3480 Topics in CFANS: Dean's Engaged Leaders Seminar
3 credit(s), max credits 8;
Instructor: Newberg, Sara Nagel
Description: Student may contact the instructor or department for information.

CFAN 3480 Topics in CFANS: Food and Chemistry
1 credit(s), max credits 8;
Instructor: Mullan, Caitrin A.
Description: Student may contact the instructor or department for information.
College of Liberal Arts
49 Johnston Hall

CLA 1001 Introduction to CLA Student Life
S-N only, 1 credit(s);
Instructor: STAFF
Description: CLA 1001 teaches strategies to aid first-year students in their transition to the College of Liberal Arts and the University of Minnesota. The course is designed to be a continuing orientation during the first semester at the U of M. CLA 1001 covers topics including study skills, the liberal arts, and four-year planning. The course also addresses student life issues such as finances and campus involvement while introducing students to the University of Minnesota Portfolio. Each section of the course is taught by an academic adviser from CLA Student Services, bringing together both the classroom experience and advising. The sections are co-led by an undergraduate teaching assistant, who will assist students with their transition to college from a peer perspective.
Style: 40% Lecture, 40% Discussion.
Grading: Based on attendance, participation, and satisfactory completion of all work.
Exam Format: No exams

CLA 1005 Introduction to Liberal Arts Learning
A-F only, 3 credit(s); prereq CLA ATS fr;
Instructor: Williams, Andrew L
Description: Student may contact the instructor or department for information.

CLA 1301 SEAM First Year Seminar
A-F only, 2 credit(s); prereq SEAM;
Instructor: Kappler, Barbara Jean
Description: Student may contact the instructor or department for information.

CLA 1301 SEAM First Year Seminar
A-F only, 2 credit(s); prereq SEAM;
Instructor: Phibbs, Anne Elizabeth
Description: Student may contact the instructor or department for information.

CLA 1301 SEAM First Year Seminar
A-F only, 2 credit(s); prereq SEAM;
Instructor: Campbell, Colin R
Description: Student may contact the instructor or department for information.

CLA 1301 SEAM First Year Seminar
A-F only, 2 credit(s); prereq SEAM;
Instructor: Garrick, Sean Clifford
Description: Student may contact the instructor or department for information.

CLA 1303 SEAM Seminar
A-F only, 3 credit(s); prereq SEAM student;
Instructor: McKenna PhD, Dennis Jon
Description: Student may contact the instructor or department for information.

College of Science and Engineering
106 Lind Hall

CSE 1 Fundamentals of Engineering Review (E.I.T. Refresher)
S-N only, 0 credit(s); prereq Bachelor's degree in engineering;
Instructor: Nordell, Daniel Edwin
Description: This course is a review of engineering fundamentals required to pass the National Council of Engineering Examiners Fundamentals of Engineering examination. It is designed to aid in preparation for the FE examination by presenting an organized review of material ordinarily contained in a college engineering curriculum. Primary emphasis will be on problem solving with orientation as close as possible to the type of questions contained in the exam.
Prerequisite: Engineering or equivalent degree or candidate for degree
Style: 75% Lecture, 25% Discussion.
Grading: 100% successful completion of the FE exam
Multiple choice.

CSE 1101 Environmental Issues and Solutions
4 credit(s); prereq High school chemistry or equiv, one yr high school algebra; Meets CLE req of Environment; meets CLE req of Physical Sciences;
Instructor: Arnold, Bill
Description: This course will address the behavior of natural systems, man's impact on the environment, how we are trying to meet the challenges of supplying the population with water, energy, food etc. while trying to minimize negative impacts. Students will participate in hands-on water quality labs, field trips and small discussion groups. CLE Physical Science with Lab Core and Environment Theme This class meets two liberal education requirements (Physical Science with Lab Core and Environment Theme). The Physical Science with Lab Core is satisfied through analysis of environmental issues, such as pollution, limited resources, and population growth. Natural physical and chemical phenomena that drive environmental systems and their associated biological components are examined (for example, what chemical and energy inputs are required in environmental systems, and how do specific conditions dictate the biological makeup of an ecosystem). The impact of human alterations on these physical and chemical phenomena (via pollution and other changes) are also examined. The topics are discussed on a scientific basis, but how human values and policies affect our decisions (and tradeoffs) are also considered. The hands-on laboratory component reinforces the lecture and requires hypothesis testing, setting up experiments, analyzing and interpreting the data, graphing results, and writing laboratory reports. Major environmental issues and the underlying scientific principles, the relationship (and impact) of humans with the environment, technologies that cause and solve environmental issues, reliable information sources, are discussed. Throughout the class, the role that societal values and ethics play in selecting and implementing solutions to environmental problems are interwoven into the material. Thus, the emphasis is how sustainable solutions to our environmental problems must not only be based on sound science, but also be consistent with our values and ethics. These topics are used to satisfy the Environmental Theme. Part of being a citizen of world is understanding how human activities (ranging from daily individual to societal choices) impact the environment and the species (including humans) that depend on environmental resources for survival. Minimizing our impacts also requires an understanding of the drivers of environmental processes. Liberal educations requirements such as IoT 1101 are designed to provide such knowledge to make students engaged public citizens.
Style: 40% Lecture, 40% Laboratory, 5% Field Trips, 5% Guest Speakers.
Grading: 50% reports/papers, 40% quizzes, 10% in-class presentation. Reports are laboratory reports

CSE 1311 Engineering Basics
A-F only, 2 credit(s);
Instructor: Imbertson, Paul Jay
Description: Student may contact the instructor or department for information.

CSE 1411 Exploring Careers in Science and Engineering
A-F only, 1 credit(s), max credits 2;
Instructor: Hinz, Katy Irene
Description: COURSE OBJECTIVES ? Examine current major/career direction ? Assess interests, values, skills,
strengths, and personality preferences to determine careers/work environments in which they may fit? Investigate careers of interest through primary and secondary resources? Become knowledgeable about fields within engineering, science, or other industries through informational interviewing and industry guest speakers? Understand how your skill set may transfer to other occupations? Learn techniques for gaining experience in your chosen field? Create goals related to your career aspirations ASSESSMENT FEES This course uses five self-assessments to assist you in clarifying your personality, interests, values, skills, strengths? ? Personality: Myers-Briggs Type Indicator-MBTI ($10) ? Interests: Strong Interest Inventory ($10) ? StrengthsQuest ($10) ? Values: Values Assessment (Free) ? Transferrable Skills Inventory (Free)

Communication Studies
225 Ford Hall

COMM 1101 Introduction to Public Speaking
3 credit(s); Credit will not be granted if credit has been received for: WRIT 1223; Meets CLE req of Civic Life and Ethics;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

COMM 1101H Honors: Introduction to Public Speaking
3 credit(s); prereq honors; Credit will not be granted if credit has been received for: WRIT 1223; Meets CLE req of Civic Life and Ethics;
Instructor: Behme,Timothy Donald
Description: Student may contact the instructor or department for information.

COMM 1313W Analysis of Argument
3 credit(s); Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

COMM 1681W Rhetorical Fictions and 20th Century Conflicts
4 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Writing Intensive; meets CLE req of Literature; meets CLE req of Writing Intensive;
Instructor: Walzer,Arthur Eugene
Description: Style: 35% Lecture, 5% Film/Video, 60% Discussion.
Grading: 50% reports/papers, 25% quizzes, 25% class participation.

COMM 1905 Freshman Seminar
A-F only, 3 credit(s), max credits 6;
Instructor: Gross,Alan G
Description: Communicating the Holocaust. Schindler?s List turns the Holocaust into Hollywood. But the Holocaust was nothing like that. Rather, it was a double tragedy: for the German people and the Jews of Europe. The first descended from the heights of culture to the despicable barbarism of which the second were the victims. In this seminar, in such films as Shoah, and memoirs like Survival in Auschwitz, you will hear these victims speak in their own voices. In such films as The Wannsee Conference and such books as Ordinary Men, you will hear their tormentors speak candidly about their experiences. These riveting accounts are not about unnamed millions, but about the temptations and tragedies of real people, victims and perpetrators who were as Nietzsche says, human, all too human.
Style: 20% Lecture, 80% Discussion.
Grading: 100% written homework. There will be 15 250-word reaction papers, based on the week's reading. These will be the sole basis for the grade.

COMM 1908W Freshman Seminar
A-F only, 3 credit(s), max credits 6; prereq freshman; Meets CLE req of Civic Life and Ethics; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

COMM 1910W Freshman Seminar
A-F only, 3 credit(s), max credits 6; Meets CLE req of Writing Intensive;
Instructor: Schiappa,Edward
Description: Student may contact the instructor or department for information.

COMM 3110 Topics in Speech-Communication
3 credit(s), max credits 15, 5 completions allowed;
Instructor: Helwich,David A
Description: Student may contact the instructor or department for information.

COMM 3190H Honors Course: Research Seminar in Communication
A-F only, 3 credit(s), max credits 6; prereq Honors candidate in comm, instr consent , dept consent ;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

COMM 3201 Introduction to Electronic Media Production
A-F only, 4 credit(s); prereq 3201 or instr consent ;
Instructor: Gregg,Peter Benjamin
Description: This course is designed to provide students with experience in live-on-tape and single camera video production, including post production on video editing workstations, shooting and lighting on locations, and sound recording. The course emphasis is on field production. Students will work in groups on three major projects. Students will apply the aesthetic and critical knowledge they acquired in Comm 3201, and learning further techniques, technologies, and theories. This course requires extensive out-of-class work. Comm 3201 is a required prerequisite.
Style: 33% Lecture, 33% Discussion, 34% Laboratory.
Grading: 10% reports/papers, 60% special projects, 5% class participation, 25% laboratory evaluation.

COMM 3204 Advanced Electronic Media Production
A-F only, 4 credit(s); prereq 3201 or instr consent ;
Instructor: Neuman-Scott,Mark A
Description: This course is designed to provide students with experience in single camera video production, including post production on video editing workstations, shooting and lighting on locations, and sound recording. The course emphasis is on field production. Students will work in groups on three major projects. Students will apply the aesthetic and critical knowledge they acquired in Comm 3201, and learning further techniques, technologies, and theories. This course requires extensive out-of-class work. Comm 3201 is a required prerequisite.
Style: 33% Lecture, 33% Discussion, 34% Laboratory.
Grading: 10% reports/papers, 60% special projects, 5% class participation, 25% laboratory evaluation.

COMM 3211 Introduction to U.S. Electronic Media
3 credit(s);
Instructor: Gregg,Peter Benjamin
Description: Student may contact the instructor or department for information.

COMM 3231 Reality TV: History, Culture, and Economics
3 credit(s);
Instructor: Ouellette,Laurie Jean
Description: Student may contact the instructor or department for information.
COMM 3263 Media Literacy: Decoding Media Images and Messages
A-F only, 3 credit(s);
Instructor: Leppert, Alice J
Description: Student may contact the instructor or department for information.

COMM 3263 Media Literacy: Decoding Media Images and Messages
A-F only, 3 credit(s);
Instructor: Ranachan, Kate
Description: Student may contact the instructor or department for information.

COMM 3263 Media Literacy: Decoding Media Images and Messages
A-F only, 3 credit(s);
Instructor: Morgan Parmett, Helen
Description: Student may contact the instructor or department for information.

COMM 3401 Introduction to Communication Theory
3 credit(s);
Instructor: Isaacs, Alyssa Marie
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Social scientific theory in communication. Communication history. Logic of scientific/communication theories in interpersonal, small group, organizational, intercultural, and electronically mediated communication.
Style: 100% Web Based.
Grading: 26% special projects, 48% quizzes, -1 self-introduction: -2% -4 discussions: 16% -2 application exercises: 8% -reflection paper: 3% extra credit (optional)

COMM 3605W Persuasive Speaking and Speech Writing
3 credit(s);
Instructor: Kunde, Meg H.
Description: Student may contact the instructor or department for information.

COMM 3615 Argumentation
3 credit(s);
Instructor: STAFF
Description: Student may contact the instructor or department for information.

COMM 3625 Communication Ethics
A-F only, 3 credit(s);
Instructor: STAFF
Description: Student may contact the instructor or department for information.

COMM 3631 Freedom of Speech
3 credit(s);
Instructor: STAFF
Description: Student may contact the instructor or department for information.

COMM 3635W Famous Speeches
A-F only, 3 credit(s);
Instructor: Campbell, Karlyn Kohrs
Description: Student may contact the instructor or department for information.

COMM 3645W How Pictures Persuade
A-F only, 3 credit(s);
Instructor: Gross, Alan G
Description: We live more and more in a world dominated by images and less and less in a world dominated by words. In speeches, novels, and poems, words do all the work; in graphic memoirs, novels, comics, and political cartoons, words and pictures interact to create and communicate meaning. It is this
interaction that is the subject of a course in which you will read Scott McClanahan's insightful Understanding Comics, Joe Sacco's searing memoir, Palestine, current political cartoons, and Mark Monmonier's wonderful and accessible book on weather maps. **Style:** 20% Lecture, 80% Discussion. **Grading:** 100% written homework. There will be 15 250-word papers reacting to the week's reading. The grade will be based solely on these papers.

**COMM 3980 Directed Instruction**

S-N only, 3 credit(s), max credits 6; prereq instr consent, dept consent; Instructor: Dehler, Beatrice E

Description: Student may contact the instructor or department for information.

**COMM 3990 Research Practicum**

1-3 credit(s), max credits 6, 6 completions allowed; Instructor: Jones, Susanne Margareth

Description: Student may contact the instructor or department for information.

**COMM 4204 Producing for Television: Theory and Practice**

4 credit(s); prereq 3201, 3204; Instructor: Neuman-Scott, Mark A

Description: Television is arguably the most influential form of mass media both as entertainment and information. The producer's choices in content and production aesthetics shape the message of this critical medium. Producing For Television will present the production process as a series of steps that transform media content based on audience, thematic design and story concept. Students will consider the aesthetic decisions necessary in developing a television program. They will write a script, complete preproduction planning and consider their crew and talent needs for their television program, along with exploring their social responsibilities as a media producer. Students are expected to have an understanding of cinematic grammar, the aesthetic elements of video production and how they shape media content, and knowledge of video and editing equipment. This class will also create an opportunity for students to present their production design and scripts to a group for critique and feedback as they work through the preproduction process and script development in preparation to the shoot and edit their television program.

**COMM 4291 New Telecommunication Media**

A-F only, 3 credit(s); prereq 3211 or instr consent; Instructor: Rodman, Gilbert B.

Description: Student may contact the instructor or department for information.

**COMM 4407 Communication and Conflict**

A-F only, 3 credit(s); prereq 3401 or instr consent; Instructor: Hewes, Dean E

Description: Student may contact the instructor or department for information.

**COMM 4471 Communication in Marriage and Family**

3 credit(s); prereq 3401 or 3402 or instr consent; Instructor: Rose, Jeremy H

Description: Student may contact the instructor or department for information.

**COMM 5110 Special Topics in Communication Theory**

3 credit(s), max credits 9, 3 completions allowed; Instructor: Ouellette, Laurie Jean

Description: Student may contact the instructor or department for information.

**COMM 5211 Critical Media Studies: Theory and Methods**

A-F only, 3 credit(s); prereq Grad student or instr consent; Instructor: Vavrus, Mary D

Description: Student may contact the instructor or department for information.

**COMM 5402 Advanced Interpersonal Communication**

3 credit(s); prereq 3401 or 3402; Instructor: STAFF

Description: Student may contact the instructor or department for information.

**COMM 5421 Quantitative Methods in Communication Research**

A-F only, 3 credit(s); prereq 3401 or instr consent; Instructor: Jones, Susanne Margareth

Description: This course will introduce you to and advance your knowledge of empirical scientific research methods, specifically in communication, but also life in general! The term empirical refers to everything we can perceive with our human senses. That excludes communicating with aliens, ghosts, or other weird creatures. The term scientific means nothing more than the systematic process of generating knowledge. That excludes pseudo or junk science (e.g., students who eat cheese curds are Packers fans). We will work towards helping you hone your skills as a naive scientist (after all, we ARE born with the why gene). Using the principles of scientific inquiry, you will learn how to ask questions about, and collect and make sense of data relevant to interpersonal communication, media studies, and cultural studies. You will also be able to apply these principles to life, in general. By the end of the course you should be able to a) understand the philosophical assumptions of empirical scientific research and its relevance to everyday life; b) understand what kinds of research questions can and cannot be answered using scientific methods and procedures; c) examine critically empirical research results using sound scientific research principles; d) formulate, test, and interpret your own sound scientific research project with quantifiable data; e) understand the importance of inferential statistics in daily life; f) calculate simple statistical tests and use Excel effectively to enter, test, and interpret data; and finally, g) wonder why you were so afraid of this whole stats biz. **Style:** 70% Lecture, 10% Discussion, 20% Laboratory. **Grading:** 15% mid exam, 15% final exam, 50% reports/papers, 15% written homework, 5% attendance.

**COMM 5441 Communication in Human Organizations**

3 credit(s); prereq 9 cr social science, 3441 or instr consent; Instructor: STAFF

Description: Student may contact the instructor or department for information.

**COMM 5441 Communication in Human Organizations**

3 credit(s); prereq 9 cr social science, 3441 or instr consent; Instructor: Jacobi, Laura Jean

Description: This fully online section is offered through Online and Distance Learning (ODL), College of the Continuing Education. It may be taken for either undergraduate or graduate credit. (Graduate students are advised to register for A-F grading.) Visit "Class URL" for ODL policies, including fee and financial aid restrictions. This course helps students understand the distinct nature of human communication in organizations. Students will learn to recognize the key factors that influence individuals and apply theories of organizational communication. After identifying and using established methods to diagnose issues and problems related to communication, students will develop their own strategies for discovering and explaining organizational and individual interactions. **Style:** 100% Web Based. **Grading:** --12 weekly online discussion submissions and responses (33.3% undergrad, 28.6% grad) --2 brief reviews (33.3% undergrad, 28.6% grad) --1 research project (33.4% undergrad, 28.6% grad) --1 profile of a communications scholar (14.2% grad only)

**COMM 5451W Intercultural Communication Processes**

3 credit(s); Meets CLE req of Writing Intensive; Instructor: Hayes, Heather Ashley

Description: Students may contact the instructor or department for information.

**COMM 8210 Seminar: Selected Topics in U.S. Electronic Media**

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. **IMPORTANT:** Before you attend the first class, verify the room location in the online Class Schedule.
University of Minnesota - Course Guide for Twin Cities Campus Fall 2010

3 credit(s), max credits 18, 6 completions allowed; prereq 5210 or instr consent ; offered when feasible; Instructor: Schiappa, Edward
Description: Student may contact the instructor or department for information.

COMM 8211 Critical Communication Communication Studies: History, Theory, Method 3 credit(s);
Instructor: Rodman, Gilbert B.
Description: Student may contact the instructor or department for information.

COMM 8402 Seminar: Interpersonal Communication 3 credit(s); prereq 5402 or instr consent ;
Instructor: Ruetter, Martha A
Description: This course is designed for advanced graduate students in areas of family, communication, interpersonal relationships, and allied fields interested in current family communication research, methods, and theories. The emphasis will be on research associating communication processes in families with relationship outcomes, family member well-being, and child adjustment. The course will be taught as a seminar with students involved in the review and discussion of readings covering prominent family communication theories. Methods used to study communication in families will also be reviewed, discussed, and practiced. Methods covered will include study design using self-reports, observation, and laboratory settings and the quantitative analysis of data. Upon completion of this course, a student should have: A basic knowledge of current research on the association between family communication and family member well-being. The ability to identify and utilize family communication theories appropriate to one's research question. The ability to identify and utilize family communication methods appropriate to one's research question.
Style: 15% Lecture, 40% Discussion, 15% Small Group Activities, 20% Student Presentation, 10% Demonstration.
Grading: 30% reports/papers, 10% attendance, 30% in-class presentation, 30% class participation.

Comparative Literature
235 Nicholson Hall

CL 5910 Topics in Comparative Literature: Kittler & German Media Theory 3 credit(s), max credits 24, 8 completions allowed;
Instructor: Hueser, Rembert
Description: Student may contact the instructor or department for information.

CL 5910 Topics in Comparative Literature 3 credit(s), max credits 24, 8 completions allowed;
Instructor: Rothe, Matthias
Description: Student may contact the instructor or department for information.

CL 8001 Basic Seminar in Comparative Literature I 3 credit(s); prereq CLIT or Germanic Studies grad major;
Instructor: Mowit, John W
Description: Student may contact the instructor or department for information.

CL 8910 Advanced Topics in Comparative Literature: Adorno/Aesthetic Theory 3 credit(s), max credits 24, 8 completions allowed;
Instructor: Leppert, Richard
Description: "Aesthetic Theory" is Adorno's last major work, left unfinished at his death, but in an advanced state of final revision. The book represents perhaps the most important socially-grounded examination of aesthetics produced in the last century. Adorno's single largest work, it is written without chapter divisions of any kind. Notoriously difficult, it is nonetheless intellectually stunning and provocatively rich on the relation of aesthetics to society, the human subject, subjectivity, and late-modernity generally. The seminar will be organized as a patient and careful read of this single long text, supplemented by a number of secondary essays and book chapters reflecting new research on this aspect of Adorno's work. Theodor W. Adorno (1903-1969), one of the principal figures associated with the Frankfurt School and the "founding" of Critical Theory, wrote extensively on culture, society, the Enlightenment, modernity, aesthetics, and the arts--music in particular (classical, popular, jazz, film music, etc.), but also extensively on literature. Together with his colleague Max Horkheimer, he formulated one of the first and most influential sustained critiques on the social transformations wrought by mass culture and modern communications media. He was a philosopher, sociologist, musicologist, composer, and a quite talented pianist. Not least, Adorno was a prominent public intellectual in postwar Germany up to the time of his death, writing for the popular press and giving numerous radio lectures on topics that included education, music, and contemporary politics. Intellectually shaped by the history of German philosophy from Kant to Nietzsche, Adorno's work seeks to move philosophy from a confrontation with itself to an analysis of society and the cultural apparatus more generally. His writing is informed by Marx (on society in capitalism) and Freud (on the formation of the bourgeois subject). Very much a modernist bourgeois himself, nonetheless Adorno was among the most trenchant critics of twentieth-century culture, set in the contexts of the rise of fascism and, later, the Cold War. Like his colleague, friend, and intellectual sparring partner Walter Benjamin, Adorno was deeply concerned with the apparatus of mass media as socio-culturally transformative (radio, film, television, the phonograph). Note: Registration requires instructor's advance permission.
Style: 50% Lecture, 25% Discussion, 25% Student Presentation.

CL 8910 Advanced Topics in Comparative Literature: Post Colonial Translation 3 credit(s), max credits 24, 8 completions allowed;
Instructor: Tageldin, Shaden M
Description: "Translation," writes Gayatri Chakravorty Spivak, "is the most intimate act of reading. I surrender to the text when I translate." Here Spivak speaks of translating a Bengali tongue whose intimacy has been lost to her as an Indian-born academic living in (post)colonial diaspora, not of the transfers of power at stake when a (post)colonial writer translates a colonizer's language--or vice versa. Yet translation, literary and otherwise, figures prominently in the cultural history of imperialism and begs a closer critical look. This seminar will interrogate the role of translation in both imperialisms and reactions to imperialism--past and present--across the (post)colonial power divides of Africa, Asia, the Arab world, Europe, and their diasporas. On each side of the power differential it enforces, empire deforms and reshapes both the theory and the praxis of translation. We will consider those effects, as well as the impact of the translation-empire nexus on world literary and historical formations and transformations. By necessity, then, _translation_ in this seminar will denote as much ontological, epistemological, and cultural translation as it will inter- and intra-lingual translation. Shuttling between critical translation theory, literary history, and close readings of "translational literature," we will engage a set of interrelated questions. How have representatives of many Western empire (invaders and traders, preachers and teachers, scholars and bureaucrats) used translation to elicit the surrender of their would-be subjects? How have writers and intellectuals in colonized or semi-colonial domains, in turn, pursued translation to resist or embrace their dominators’ assumed "superiority" and—most often—to propel their cultures toward the West's presumed "modernity"? Why have literary-cultural "awakenings" in much of the world beyond Europe—from the Indian "renaissance" to the Arab _nahda_ to the

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Chinese May Fourth movement to pan-African _negritude_—taken such charged translational forms, at once remolding literary cultures in the cast of the European dominant and refashioning those cultures against the dominant grain? How might we theorize (post)colonial translation in terms linguistic, material, religious, affective, sexual, psychological? Which face of translation—equivalence or incommensurability—might forge cultural and political equity between the dominator and the dominated? Which reinforces subjection? Finally, what are the implications of the translation-empire nexus for comparative literature and postcolonial studies today? Readings may include selections from Agha Shahid Ali, Emily Apter, Paul Bandia, Walter Benjamin, Aime Cesaire, Jacques Derrida, Assia Djebar, Brent Hayes Edwards, Abdel fattah Kilito, Lydia Liu, Naguib Mahfouz, Natalie Melas, Tejaswini Niranjana, Vicente Rafael, Naoki Sakai, Gayatri Chakravorty Spivak, Rifa'a al-Tahtawi, Ngugi wa Thiong'o, Lawrence Venuti, Lu Xun, and others.

Style: 20% Lecture, 60% Discussion, 20% Student Presentation. Grading: 60% reports/papers, 20% in-class presentation, 20% class participation.

**Comparative Studies in Discourse and Society**

235 Nicholson Hall

**CSDS 5910 Topics in Comparative Studies in Discourse and Society**

3 credit(s), max credits 24, 8 completions allowed; Instructor: Rothe, Matthias

Description: Student may contact the instructor or department for information.

**CSDS 8001 Basic Seminar: Comparative Studies in Discourse and Society I**

3 credit(s); prereq CSDS or Germanic Studies grad major; Instructor: Mowitt, John W

Description: Student may contact the instructor or department for information.

**CSDS 8910 Advanced Topics in Comparative Studies in Discourse and Society: Adorno/Aesthetic Theory**

3 credit(s), max credits 24, 8 completions allowed; Instructor: Lepper, Richard

Description: “Aesthetic Theory” is Adorno’s last major work, left unfinished at his death, but in an advanced state of final revision. The book represents perhaps the most important socially-grounded examination of aesthetics produced in the last century. Adorno’s single largest work, it is written without chapter divisions of any kind. Notoriously difficult, it is nonetheless intellectually stunning and provocatively rich on the relation of aesthetics to society, the human subject, subjectivity, and late-modernity generally. The seminar will be organized as a patient and careful read of this single long text, supplemented by a number of secondary essays and book chapters reflecting new research on this aspect of Adorno’s work. Theodor W. Adorno (1903-1969), one of the principal figures associated with the Frankfurt School and the “ founding” of Critical Theory, wrote extensively on culture, society, the Enlightenment, modernity, aesthetics, and the arts—music in particular (classical, popular, jazz, film music, etc.), but also extensively on literature. Together with his colleague Max Horkheimer, he formulated one of the first and most influential sustained critiques on the social formations and transformations wrought by mass culture and modern communications media. He was a philosopher, sociologist, musicologist, composer, and a quite talented pianist. Not least, Adorno was a prominent public intellectual in postwar Germany up to the time of his death, writing for the popular press and giving numerous radio lectures on topics that included education, music, and contemporary politics. Intellectually shaped by the history of German philosophy from Kant to Nietzsche, Adorno’s work seeks to move philosophy from a confrontation with itself to an analysis of society and the cultural apparatus more generally.

This writing is informed by Marx (on society in capitalism) and Freud (on the formation of the bourgeois subject). Very much a modernist bourgeois himself, nonetheless Adorno was among the most trenchant critics of twentieth-century culture, set in the contexts of the rise of fascism and, later, the Cold War. Like his colleague, friend, and intellectual sparring partner Walter Benjamin, Adorno was deeply concerned with the apparatus of mass media as socio-cultural transformative (radio, film, television, the phonograph). Note: Registration requires instructor’s advance permission.

Style: 50% Lecture, 25% Discussion, 25% Student Presentation.

**CSDS 8910 Advanced Topics in Comparative Studies in Discourse and Society: Freud/Lacan**

3 credit(s), max credits 24, 8 completions allowed; Instructor: Pepper, Thomas Adam

Description: Student may contact the instructor or department for information.

Style: 50% Lecture, 25% Discussion, 25% Student Presentation.
Comparative and Molecular Biosciences

CMB 5180 Ecology of Infectious Diseases
A-F only, 3 credit(s); prereq MVB or CMB or VMed grad student or instr consent; Credit will not be granted if credit has been received for: PUBH 6380;
Instructor: Singer, Randall
Description: Student may contact the instructor or department for information.

CMB 5200 Statistical Genetics and Genomics
A-F only, 4 credit(s); Credit will not be granted if credit has been received for: ANSC 5200;
Instructor: Da, Yang
Description: Student may contact the instructor or department for information.

CMB 5594 Directed Research in Comparative and Molecular Biosciences
1-4 credit(s), max credits 8, 8 completions allowed; prereq Jr;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

CMB 8100 Research Rotation in Comparative and Molecular Biosciences
S-N only, 1 credit(s), max credits 2; prereq CMB grad student;
Instructor: Murtaugh, Michael P
Description: Student may contact the instructor or department for information.

CMB 8134 Ethical Conduct of Animal Research
A-F only, 3 credit(s); prereq [Grad or professional school] student or instr consent; Credit will not be granted if credit has been received for: ANSC 8134;
Instructor: Molitor, Thomas William
Description: Student may contact the instructor or department for information.

CMB 8202 Mechanisms of Animal Health and Disease II
3 credit(s); prereq 8201;
Instructor: Sreevatsan, Srinand
Description: Student may contact the instructor or department for information.

CMB 8344 Mechanisms of Hormone Action
2 credit(s); prereq Course in biochemistry or cell biology or instr consent;
Instructor: Mauro PhD, Laura J.
Description: Student may contact the instructor or department for information.

CMB 8394 Research in Comparative Biomedical Sciences
1-6 credit(s), max credits 18, 5 completions allowed; prereq Grad CMB major;
Instructor: Murtaugh, Michael P
Description: Student may contact the instructor or department for information.

CMB 8481 Advanced Neuropsychopharmacetics
A-F only, 4 credit(s); prereq instr consent; Credit will not be granted if credit has been received for: NSC 8481;
Instructor: Fairbanks, Carolyn Ann
Description: Student may contact the instructor or department for information.

CMB 8550 Comparative and Molecular Biosciences Seminar
S-N only, 1 credit(s), max credits 8, 8 completions allowed; prereq Biol sciences grad student;
Instructor: Rutherford, Mark Stephen
Description: Student may contact the instructor or department for information.

CMB 8560 Research and Literature Reports
S-N only, 1 credit(s), max credits 8, 8 completions allowed; prereq Grad CMB major or instr consent;
Instructor: Skinner, Pamela Jo
Description: Student may contact the instructor or department for information.

CMB 8560 Research and Literature Reports
S-N only, 1 credit(s), max credits 8, 8 completions allowed; prereq Grad CMB major or instr consent;
Instructor: Murtaugh, Michael P
Description: Student may contact the instructor or department for information.

CMB 8570 Comparative Biomedical Sciences Seminar
S-N only, 1 credit(s), max credits 8, 8 completions allowed; prereq Biol sciences grad student;
Instructor: St. Hill, Catherine
Description: Student may contact the instructor or department for information.

Computer Science

CSCI 1103 Introduction to Computer Programming in Java
4 credit(s);
Instructor: Sturtivant, Carl
Description: Programming and problem solving fundamentals. Significant portions of Java programming language. Students design/write Java programs relating to various subjects. Substantial programming projects. Integral weekly lab.
Style: 55% Lecture, 45% Laboratory.
Grading: 11% mid exam, 35% final exam, 26% laboratory evaluation, 28% problem solving.
Exam Format: Problem solving questions

CSCI 1113 Introduction to C/C++ Programming for Scientists and Engineers
4 credit(s); prereq Math 1271 or Math 1371;
Instructor: Swanson, Charles D
Description: This course will cover algorithm development and the principles of computer programming using C and C++. Topics include introduction to computers and computing, program development, C/C++ programming language syntax, and elementary numerical methods for scientists and engineers. The prerequisite of one semester of calculus indicates the level of mathematical reasoning used in the class.
Style: 50% Lecture, 50% Laboratory.
Grading: 25% mid exam, 25% final exam, 50% laboratory evaluation.
Exam Format: Problems

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Instructor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 3921W</td>
<td>Social, Legal, and Ethical Issues in Computing</td>
<td>3</td>
<td>3081W</td>
<td>Swanson, Charles D</td>
<td>Computing technology is having profound effects on society, providing many benefits but presenting many challenges as well. Important issues such as privacy, freedom of speech, intellectual property rights, social networking, and professional conduct will be considered from social, legal and ethical perspectives.</td>
</tr>
<tr>
<td>CSCI 3970</td>
<td>Industrial Student Co-op Assignment</td>
<td>3-4</td>
<td>1902, 2011 or instr consent</td>
<td>Posbergh, Thomas Alfred</td>
<td>S-N only, 2 credit(s), max credits 4; can be granted if credit has been received for: EE 4363; Credit will not be granted if credit received for: 5201, EE 5361; Credit will not be granted if credit has been received for: EE 4363;</td>
</tr>
<tr>
<td>CSCI 4041</td>
<td>Algorithms and Data Structures</td>
<td>4</td>
<td>Concurrent registration is required (or allowed) in MATH 1271 or equiv or instr consent</td>
<td>Karypis, George</td>
<td>15% mid exam, 40% final exam, 45% problem solving.</td>
</tr>
<tr>
<td>CSCI 4061</td>
<td>Introduction to Operating Systems</td>
<td>4</td>
<td>Concurrent registration is required (or allowed) in MATH 1271 or equiv or instr consent</td>
<td>Kinney, Larry L</td>
<td>15% mid exam, 40% final exam, 45% problem solving.</td>
</tr>
</tbody>
</table>

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
Perspectives; meets CLE req of Technology and Society; 
Instructor: Misa, Thomas J 
Description: Student may contact the instructor or department for information.

CSCI 4950 Senior Software Project 
A-F only, 3 credit(s), max credits 6; prereq Upper div CSci, instr consent; 
Instructor: Riedl, John T 
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Zhang, Zhi-Li 
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Barry, Phillip 
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Konstan, Joseph Andrew 
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Boley, Daniel L 
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Papanikolopoulos, Nikolaos P 
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Riedl, John T 
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Janardan, Flavi 
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Konstan, Joseph Andrew 
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Sturtivant, Carl 
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Kumar, Vipin 
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Zhang, Zhi-Li 
Description: Student may contact the instructor or department for information.

CSCI 4970 Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Barry, Phillip 
Description: Student may contact the instructor or department for information.

CSCI 4970 Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Konstan, Joseph Andrew 
Description: Student may contact the instructor or department for information.

CSCI 4970 Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Boley, Daniel L 
Description: Student may contact the instructor or department for information.

CSCI 4970 Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Papanikolopoulos, Nikolaos P 
Description: Student may contact the instructor or department for information.

CSCI 4970 Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Riedl, John T 
Description: Student may contact the instructor or department for information.

CSCI 4970 Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Janardan, Flavi 
Description: Student may contact the instructor or department for information.

CSCI 4970 Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Konstan, Joseph Andrew 
Description: Student may contact the instructor or department for information.

CSCI 4970 Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Sturtivant, Carl 
Description: Student may contact the instructor or department for information.

CSCI 4970 Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Kumar, Vipin 
Description: Student may contact the instructor or department for information.

CSCI 4970 Advanced Project Laboratory 
3 credit(s), max credits 9, 3 completions allowed; prereq 
Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive; 
Instructor: Zhang, Zhi-Li 
Description: Student may contact the instructor or department for information.
CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Weissman, Jon B
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Du, David Hung-Chang
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Heimdahl, Mats
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Schrater, Paul Robert
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Schrater, Paul Robert
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Gini, Maria L
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Srivastava, Jaideep
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Schrater, Paul Robert
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Roumeliotis, Stergios
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Kim, Yongdae
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Chandra, Abhishek
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Hsu, Wei Chung
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Nadathur, Gopalan
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Meyer, Gary W
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Van Wyk, Eric
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Terveen, Loren Gilbert
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Gini, Maria L
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Hsu, Wei Chung
Description: Student may contact the instructor or department for information.
CSCI 4970W Advanced Project Laboratory

3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Mokbel,Mohamed F
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory

3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Banerjee,Arindam
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory

3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Myers,Chad Leighton
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory

3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Keele,Dan F
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory

3 credit(s), max credits 9, 3 completions allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr; Meets CLE req of Writing Intensive;
Instructor: Isler,Ibrahim Volkan
Description: Student may contact the instructor or department for information.

CSCI 4994H Honors Thesis

A-F only, 1-3 credit(s), max credits 6; prereq Honors student, instr consent ;
Instructor: Boley,Daniel L
Description: Student may contact the instructor or department for information.

CSCI 5013 Operating Systems

3 credit(s); prereq 4061 or instr consent ;
Instructor: Tripathi,Anand R
Description: Student may contact the instructor or department for information.

CSCI 5016 Programming Languages

3 credit(s); prereq 4011 or instr consent ;
Instructor: Nadathur,Gopalan
Description: This course is intended for advanced undergraduates and beginning graduates. A prior exposure to at least a couple of different programming languages and an interest and willingness to think broadly about such languages will be assumed. The focus in this course will be on conceptual issues—such as structure, usability and implementability—that determine programming languages and paradigms. Much of the material will be presented as case studies based on languages like Pascal, C, C++, Java, ML, Haskell and Prolog. Some programming in each of these languages will be necessary, but this will not be an end in itself. The text for this course is "Programming Languages: Concepts and Constructs", 2nd edition, by Ravi Sethi. Details regarding grading and other policies will be accessible prior to the start of the course from the instructor's Web page at http://www.cs.umn.edu/~gopalan.
Style: 90% Lecture, 10% Discussion.
Grading: 25% mid exam, 25% final exam, 50% problem solving.
Exam Format: Problem solving, conceptual

CSCI 5107 Fundamentals of Computer Graphics 1

3 credit(s); prereq [4041 or instr consent ], fluency in C/C++, mastery of basic concepts in linear algebra; Credit will not be granted if credit has been received for: CSCI 4107;
Instructor: Keefe,Dan F
Description: Student may contact the instructor or department for information.

CSCI 5109 Visualization

3 credit(s); prereq 1902, 4041 or equiv or instr consent ;
Instructor: Interrante,Victoria
Description: This course will cover the fundamental theory and practice of data visualization, with an emphasis on programming visualization applications. Students will learn techniques for generating effective visual representations of 2D and 3D scalar and vector data. Topics will include: volume visualization, vector field visualization, information visualization (including a summary of graphic design techniques for information display), multivariate visualization, uncertainty visualization, visualization of large datasets, visualization in immersive virtual environments, and perceptual issues in effective data representation, including techniques for the successful use of color and texture in visualization, and strategies and methods for evaluating a visualization's effectiveness. Projects will be implemented in C++ using VTK or a similar visualization API.
Style: 90% Lecture, 10% Discussion.
Grading: 20% mid exam, 5% reports/papers, 55% special projects, 20% other evaluation. second midterm exam
Exam Format: essay, short answer, problem solving

CSCI 5115 User Interface Design, Implementation and Evaluation

3 credit(s); prereq 4041 or instr consent ;
Instructor: Terveen,Loren Gilbert
Description: This class covers the theory, design, evaluation, and implementation of interactive application interfaces. The course is built around a large design, evaluation, and implementation project that is completed in groups. Topics include: human capabilities and limitations, the interface design and engineering process, prototyping, issues in interface construction, interface evaluation, and current topics such as data visualization, world wide web interfaces, client communities, and ubiquitous computing. The class format is lecture, in-class individual and group activities, and discussion. Class participation is expected. Thoughtful questions are as important as answers.

CSCI 5129 e-Public Health: Online Intervention Design

3 credit(s);
Instructor: Rosser,B. R. Simon
Description: Student may contact the instructor or department for information.

CSCI 5204 Advanced Computer Architecture

3 credit(s); prereq 4203 or EE 4363 credit will not be granted if credit received for: 8203, EE 8365;
Instructor: Zhai,Antonia Bingheng
Description: Student may contact the instructor or department for information.

CSCI 5211 Data Communications and Computer Networks

3 credit(s); prereq 4061 or instr consent ;
Instructor: Du,David Hung-Chang
Description: Student may contact the instructor or department for information.

CSCI 5271 Introduction to Computer Security
CSCI 5801 Software Engineering I
3 credit(s); prereq 4061 or equiv or instr consent; 
Instructor: Hopper, Nicholas J 
Description: This course will introduce students to many of the basic concepts of computer, network and information security. Topics covered include risk analysis, authentication, access control, security evaluation, audit trails, cryptography, network security, database security, application security, viruses and firewalls. The target audience is first-year graduate students and senior undergraduates in computer science and engineering. 
Style: 90% Lecture, 10% Discussion. 
Grading: 25% mid exam, 25% final exam, 25% special projects, 25% problem solving.

CSCI 5304 Computational Aspects of Matrix Theory 
3 credit(s); prereq 2031 or 2033 or instr consent; 
Instructor: Saad, Yousef 
Description: Student may contact the instructor or department for information.

CSCI 5421 Advanced Algorithms and Data Structures 
3 credit(s); prereq 4041 or instr consent; 
Instructor: Janardan, Ravi 
Description: Student may contact the instructor or department for information.

CSCI 5481 Computational Techniques for Genomics 
3 credit(s); prereq 4041 or instr consent; 
Instructor: Karypis, George 
Description: This course provides an introduction to the various computational techniques that are used to analyze the biological data generated by genome sequencing, proteomics, and cell-wide measurements of gene expression changes. The topics that are covered include algorithms for single and multiple sequence alignments, algorithms for sequence assembly, search algorithms for sequence databases, phylogenetic tree construction algorithms, algorithms for gene and promoter prediction, protein structure prediction, statistical methods and data mining algorithms for micro array expression analysis, algorithms for reverse engineering of regulatory networks. 
Style: 80% Lecture, 20% Discussion. 
Grading: 30% mid exam, 40% final exam, 30% reports/papers. 
Exam Format: Essay

CSCI 5511 Artificial Intelligence I 
3 credit(s); prereq [2011 or instr consent], grad student; Credit will not be granted if credit has been received for: CSCI 4511W; 
Instructor: Papanikolopoulos, Nikolaos P 
Description: Student may contact the instructor or department for information.

CSCI 5525 Machine Learning 
3 credit(s); prereq Grad student or instr consent; 
Instructor: Kuang, Rui 
Description: Student may contact the instructor or department for information.

CSCI 5551 Introduction to Intelligent Robotic Systems 
3 credit(s); prereq 2031 or 2033 or instr consent; 
Instructor: Roumeliotis, Stergios 

CSCI 5707 Principles of Database Systems 
3 credit(s); prereq [4041 or instr consent], grad student; Credit will not be granted if credit has been received for: CSCI 4707; 
Instructor: Carlis, John Vincent 
Description: Student may contact the instructor or department for information.

CSCI 5801 Software Engineering I
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Konstan, Joseph Andrew
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Boley, Daniel L
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Tripathi, Anand R
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Kumar, Vipin
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Sturtivant, Carl
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Boley, Daniel L
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Papanikolopoulos, Nikolaos P
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Janardan, Ravi
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Said, Yousef
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Saad, Carl
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Sturtivant, Carl
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Kumar, Vipin
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Tripathi, Anand R
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Du, David Hung-Chang
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Heimdahl, Mats
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Shekhar, Shashi
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Gini, Maria L
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Schratel, Paul Robert
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Srivastava, Jaideep
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Interrante, Victoria
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Weissman, Jon B
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Schratel, Paul Robert
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Hsu, Wei Chung
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Interrante, Victoria
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: He, Tian
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Hsu, Wei Chung
Description: Student may contact the instructor or department for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Meyer,Gary W
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Van Wyk, Eric
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Banerjee, Arindam
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Myers, Chad Leighton
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Keefe, Dan F
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Isler, Ibrahim Volkan
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Swanson, Charles D
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Carlis, John Vincent
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Dovolis, Chris John
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Collins, John
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Karypis, George
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Hopper, Nicholas J
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Yew, Pen-Chung
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Swanson, Charles D
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ; may be repeated for cr;  
Instructor: Isler, Ibrahim Volkan
Description: Student may contact the instructor or department for information.
Instructor: Konstan, Joseph Andrew  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Boley, Daniel L  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Papanikolopoulos, Nikolaos P  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Janardan, Ravi  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Saad, Youssef  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Sturtivant, Carl  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Kumar, Vipin  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Tripathi, Anand R  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Dutagang, Hung-Chang  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Heimdahl, Mats  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Shekhar, Shashi  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Gini, Maria L  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Schrater, Paul Robert  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Srivastava, Jaideep  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Konstan, Joseph Andrew  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Nadathur, Gopalan  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Hsu, Wei Chung  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Weissman, Jon B  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Heo, Tian  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Interrante, Victoria  
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research  
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;  
Instructor: Srivastava, Jaideep  
Description: Student may contact the instructor or department for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Van Wyk, Eric
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Terveen, Loren Gilbert
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Roumeliotis, Stergios
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Kim, Yongdae
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Chandra, Abhishek
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Zhai, Antonia Bingheng
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Mokbel, Mohamed F
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Banerjee, Arindam
Description: Student may contact the instructor or department for information.

CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
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CSCI 5994 Directed Research
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CSCI 5994 Directed Research
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent; may be repeated for cr;
Instructor: Isler, Ibrahim Volkan
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq [CSci or CompE] major, instr consent;
Instructor: Roumeliotis, Stergios
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq [CSci or CompE] major, instr consent;
Instructor: Hopper, Nicholas J
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq [CSci or CompE] major, instr consent;
Instructor: Collins, John
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq [CSci or CompE] major, instr consent;
Instructor: Carlis, John Vincent
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq [CSci or CompE] major, instr consent;
Instructor: Dovolis, Chris John
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq [CSci or CompE] major, instr consent;
Instructor: Kim, Yongdae
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq [CSci or CompE] major, instr consent;
Instructor: Zhang, Zhi-Li
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq [CSci or CompE] major, instr consent;
Instructor: Barry, Phillip
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq [CSci or CompE] major, instr consent;
Instructor: Konstan, Joseph Andrew
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq [CSci or CompE] major, instr consent;
Instructor: Boley,Daniell L
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Papanikolopoulos,Nikolaos P
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Riedl,John T
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Janardan,Ravi
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Saad,Yousef
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Sturtivant,Carl
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Kumar,Vipin
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Tripathi,Anand R
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: He,Tian
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Duda,David Hung-Chang
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Heimdahl,Mats
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Shekhar,Shashi
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
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Instructor: Gini,Maria L
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Schrater,Paul Robert
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Srivastava,Jaideep
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Kuang,Rui
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Weissman,Jon B
Description: Student may contact the instructor or department for information.

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S-N only, 1 credit(s), max credits 3, 3 completions allowed;
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S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Nadathur Gopalan
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
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Instructor: Meyer,Gary W
Description: Student may contact the instructor or department for information.

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S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Van Wyk,Eric
Description: Student may contact the instructor or department for information.
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S-N only, 1 credit(s), max credits 3, 3 completions allowed;
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Instructor: Terveen,Loren Gilbert
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
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Instructor: Roumeliotis Stergios
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Kim,Yongdai
Description: Student may contact the instructor or department for information.

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S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Chandra,Abhishek
Description: Student may contact the instructor or department for information.

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S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Zhai,Antonia Bingheng
Description: Student may contact the instructor or department for information.

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S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Mokbel,Mohamed F
Description: Student may contact the instructor or department for information.

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S-N only, 1 credit(s), max credits 3, 3 completions allowed;
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Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
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Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
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Instructor: Keefe,Dan F
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq [CSci or CompE] major, instr consent ;
Instructor: Isler,Ibrahim Volkan
Description: Student may contact the instructor or department for information.

CSCI 8001 Introduction to Research in Computer Science I
A-F only, 1 credit(s); prereq 1st yr CS PhD student;
Instructor: Zhang,Zhi-Li
Description: Student may contact the instructor or department for information.

CSCI 8211 Advanced Computer Networks and Their Applications
3 credit(s); prereq 5211 or instr consent;
Instructor: He,Tian
Description: Wireless ad hoc and sensor networks contain a large number of Wireless ad hoc and sensor networks have been used in many application domains such as personal communication, military surveillance, habitat monitoring and scientific exploration. The hype indicates that wireless ad hoc and sensor networks will dominate every aspect of our lives in the near future. The overall impact is touted as the next Internet! This class presents the fundamentals regarding the hardware and software of ad hoc and sensor networks. It synthesizes materials from many research papers, presenting principles, commonalities and open research issues. Also importantly, students will obtain hand-on experience (four labs) on programming tiny communication devices to sense and communicate in this course.

CSCI 8701 Overview of Database Research
3 credit(s); prereq 5708 or instr consent;
Instructor: Srivastava,Jaideep
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Swanson,Charles D
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Carls,John Vincent
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Dovolis,Chris John
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Collins,John
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Karypis,George
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Hopper,Nicholas J
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq 5708 or instr consent;
Instructor: Swanson,Charles D
Description: Student may contact the instructor or department for information.

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S-N only, 3 credit(s); prereq CSci MS student, instr consent;
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Description: Student may contact the instructor or department for information.

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Instructor: He,Tian
Description: Wireless ad hoc and sensor networks contain a large number of Wireless ad hoc and sensor networks have been used in many application domains such as personal communication, military surveillance, habitat monitoring and scientific exploration. The hype indicates that wireless ad hoc and sensor networks will dominate every aspect of our lives in the near future. The overall impact is touted as the next Internet! This class presents the fundamentals regarding the hardware and software of ad hoc and sensor networks. It synthesizes materials from many research papers, presenting principles, commonalities and open research issues. Also importantly, students will obtain hand-on experience (four labs) on programming tiny communication devices to sense and communicate in this course.
Schedule
Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class
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University of Minnesota - Course Guide for Twin Cities Campus Fall 2010

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Konstan, Joseph Andrew
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Boley, Daniel L
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Papanikolopoulos, Nikolaos P
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Janardan, Ravi
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Saad, Yousef
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Lila, David J
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Sturtivant, Carl
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
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Instructor: Kumar, Vipin
Description: Student may contact the instructor or department for information.

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Instructor: Tripathi, Anand R
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Du, David Hung-Chang
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CSCI 8760 Plan B Project
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Description: Student may contact the instructor or department for information.

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S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Schrater, Paul Robert
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Interante, Victoria
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Kuang, Rui
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Weissman, Jon B
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: He, Tian
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Nadathur, Gopalan
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Meyer, Gary W
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Van Wyk, Eric
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Terveen, Loren Gilbert
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Roumeliotis, Stergios
Description: Student may contact the instructor or department for information.
CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Chandra, Abhishek
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Zhai, Antonia Bingheng
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Mokbel, Mohamed F
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Banerjee, Arindam
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Myers, Chad Leighton
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Keefe, Dan F
Description: Student may contact the instructor or department for information.

CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Isler, Ibrahim Volkan
Description: Student may contact the instructor or department for information.

CSCI 8980 Special Advanced Topics in Computer Science: Advanced Cryptography Seminar
3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Hopper, Nicholas J
Description: Student may contact the instructor or department for information.

CSCI 8980 Special Advanced Topics in Computer Science: Cloud Computing: A Systems View
3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Chandra, Abhishek
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Myers, Chad Leighton
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Swanson, Charles D
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Carlis, John Vincent
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Dovolis, Chris John
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Collins, John
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Karypis, George
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Yew, Pen-Chung
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Hopper, Nicholas J
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Yew, Pen-Chung
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Zhang, Zhi-Li
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Barry, Phillip
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Konstan, Joseph Andrew
Description: Student may contact the instructor or department for information.

Analysis and inference of biological networks
3 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: Kim, Yongdae
Description: Student may contact the instructor or department for information.

Student may contact the instructor or department for information.
for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Boley,Daniel L
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Papanikolopoulos,Nikolaos P
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Riedl,John T
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Janardan,Ravi
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Saad,Yousef
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Sturtivant,Carl
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Kumar,Vipin
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Tripathi,Anand R
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Du,David Hung-Chang
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Heimdahl,Mats
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Meyer,Gary W
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Shekhar,Shashi
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Gini,Maria L
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Schrater,Paul Robert
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Srivastava,Jaideep
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Interrante,Victoria
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Weisssman,Jon B
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Srivastava,Jaideep
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: He,Tian
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Hsu,Wei Chung
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Srivastava,Jaideep
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: He,Tian
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
Instr consent ;
Instructor: Heidemasti,Mats
Description: Student may contact the instructor or department for information.
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent;
Instructor: Van Wyk, Eric
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent;
Instructor: Terveen, Loren Gilbert
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent;
Instructor: Roumeliotis, Stergios
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CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
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Instructor: Kim, Yongdae
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent;
Instructor: Chandra, Abhishek
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
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Instructor: Zhang, Zhi-Li
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
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Instructor: Myers, Chad Leighton
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CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
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Instructor: Keefe, Dan F
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent;
Instructor: Isler, Ibrahim Volkan
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent;
Instructor: Swanson, Charles D
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent;
Instructor: Carlis, John Vincent
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent;
Instructor: Dovolis, Chris John
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent;
Instructor: Collins, John
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent;
Instructor: Konstan, Joseph Andrew
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent;
Instructor: Boley, Daniel L
Description: Student may contact the instructor or department for information.
CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Papanikolopoulos,Nikolaos P
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Riedl,John T
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Janardan,Ravi
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Saad,Yousef
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Sturtivant,Carl
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Kumar,Vispin
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CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Tripathi,Anand R
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CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Du,David Hung-Chang
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CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Heimdal,Mats
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Shekhar,Shashi
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Gini,Maria L
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CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Schrater,Paul Robert
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Srivastava,Jaideep
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CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
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Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Weissman,Jon B
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CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Hsu,Wei Chung
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CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: He,Tian
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Nadathur,Gopalan
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Interrante,Victoria
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq instr consent ;
Instructor: Gini,Maria L
Description: Student may contact the instructor or department for information.
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent 
Instructor: Terveen,Loren Gilbert
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent 
Instructor: Roumeliotis,Stergios
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent 
Instructor: Kim,Yongdae
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent 
Instructor: Chandra,Abhishek
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent 
Instructor: Mokbel,Mohamed F
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent 
Instructor: Banerjee,Arindam
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent 
Instructor: Myers,Chad Leighton
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent 
Instructor: Keefe,Dan F
Description: Student may contact the instructor or department for information.

CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 completions allowed; prereq
instr consent 
Instructor: Isler,Ibrahim Volkan
Description: Student may contact the instructor or department for information.

CBIO 8001 Conservation Biology Seminar
S-N only, 1 credit(s), max credits 6, 6 completions allowed; prereq
instructor consent;
Instructor: Oberhauser,Karen S
Description: Student may contact the instructor or department for information.

CBIO 8095 Contemporary Problems in Conservation Biology
S-N only, 1 credit(s), max credits 3, 1 completion allowed; prereq
5004, FW 8452, instr consent;
Instructor: Oberhauser,Karen S
Description: Student may contact the instructor or department for information.

CBIO 8201 How to Excel in Graduate School
S-N only, 2 credit(s), max credits 8, 4 completions allowed;
Instructor: Vondracek,Bruce
Description: Student may contact the instructor or department for information.

Construction Management
20 Classroom Office Building

CMGT 2019 AutoCAD for Construction Managers
S-N only, 2 credit(s); prereq 30 sem cr;
Instructor: Johnson,Ann M
Description: Introduction to AutoCAD software skills. Learn and apply the techniques of computer-aided design and drafting (CAD) at a job entry level of proficiency. Combined lecture and laboratory.

CMGT 3001 Introduction to Construction
3 credit(s);
Instructor: Kuehni,Rose Marie
Description: Introduction to construction and processes that shape our environment. A discussion of construction types and their differences, key participants and their vocabulary, and delivery systems. Construction specialists and their roles. Elements of the management of construction. Construction plan reading. Course consists of lectures and field trips.

CMGT 3011 Construction Plan Reading
2 credit(s);
Instructor: Kuehni,Rose Marie
Description: Introductory level course in construction plan reading and construction documents. Course materials include architectural, civil, mechanical, electrical drawings and project manual. The emphasis is on the development of skills necessary for the reading, understanding and interpretation of commercial construction plans and project manuals, including notes, symbols, and plan layout. This course is appropriate for third year Construction Management and CALA students, and at any time for students in IT and other colleges.

CMGT 4011 Construction Documents and Contracts
3 credit(s); prereq 3001, 45 sem cr;
Instructor: Headrick,Michael George
Description: Definition, interpretation, and utilization of drawings; specifications; agreements; bidding forms; general conditions; bonds; contracts, subcontracts, and related documents. Appropriate provisions for minority business participation will be included such as tax exempt status and wage rates.

CMGT 4012 Risk Management, Bonds, and Insurance
2 credit(s); prereq 3001, 45 sem cr;
Instructor: STAFF
Description: Identification and evaluation of property, liability, and financial risks of a construction project. Tools of risk control and risk financing. Review of insurance coverage, contract bonds, and underwriting factors.
CMGT 4013 Legal and Ethical Issues in Construction
3 credit(s); prereq 4011 or equiv or instr consent; 
Instructor: Mackay, Deborah
Description: Examination of role of construction management professional in society. Broad principles of conduct for construction management professional as well as specific goals to be achieved in professional performance and behavior and reviews of mandatory requirements.

CMGT 4021 Construction Planning and Scheduling
3 credit(s); prereq 3001, [3011 or CE 4101], 45 sem cr; 
Instructor: Styrlund, Kenneth Andre
Description: Concepts of project planning, scheduling, and control. Understanding project scheduling models with emphasis on the critical path method. Introduction to the techniques used in the industry utilizing commercial software on personal computers. The importance of periodic updating and analysis of schedules and of considering and understanding alternatives will be stressed.

CMGT 4022 Construction Estimating
3 credit(s); prereq 3001, [3011 or CE 4101], 45 sem cr; 
Instructor: Hilger, Peter
Description: Purposes and uses of various kinds of estimates. Techniques for performing quantity take-off, organizing bidding process, requesting and analyzing subcontractor proposals, unit pricing, utilizing published resources, and preparing systems-based estimates. Personal computer programs, spreadsheets, and custom applications to be introduced and used. The linkages between estimates, budgets, cost control systems, and historical cost records will be established.

CMGT 4031 Construction Safety and Loss Control
3 credit(s); prereq 3001, 45 sem cr; 
Instructor: Carroll, Milt
Description: Introduction to construction safety, health, and loss control. Hazard recognition, control procedures, Management systems for measuring/evaluating loss-control performances in construction industry.

CMGT 4193 Directed Study
1-4 credit(s), max credits 12, 3 completions allowed; prereq Admitted to CMgt major or minor or certificate;  
Instructor: STAFF
Description: Topic arranged with B.A.S. Construction Management academic adviser. [See B.A.S. Web site at www.cce.umn.edu/bas for additional course information.]

CMGT 4196 Construction Management Internship
S-N only, 1-4 credit(s), max credits 12, 3 completions allowed; prereq CMgt major or minor or certificate student), [jr or sr], dept consent; 
Instructor: STAFF
Description: Career preparation in construction management. Students will gain hands-on work experiences in a construction company, applying coursework in the workplace, contributing knowledge of best practices to make a positive impact on the construction industry, and participate in career development exercises. Professional experience internship requirement for BASc in Construction Management. May take course maximum of 3 times at maximum 4 credits for total of 12 credits maximum.

CMGT 4201 Construction Accounting
3 credit(s); prereq 3001, Acct 2050, ABus 4101; 
Instructor: Merz, Gregory T
Description: Accounting for the construction industry differs significantly from accounting in other businesses and industries. This course focuses mainly on the unique characteristics and dissimilarities which are crucial for all parties involved to understand and manage the construction process. The course will cover those unique aspects of construction financial accounting, managerial accounting, tax planning and auditing.

CMGT 4572 Structural Frames and Building Design/Construction

Continuing Dental Education
6-406 Moos Tower

CDED 7303 Postgraduate Contemporary Esthetic Dentistry: 
Level III--Dental Implants 
S-N only, 2 credit(s); 
Instructor: Olin, Paul S
Description: Student may contact the instructor or department for information.

CDED 7306 Postgraduate Contemporary Esthetic Dentistry: 
Level III--Diagnostic Box 
S-N only, 1 credit(s); 
Instructor: Olin, Paul S
Description: Student may contact the instructor or department for information.

Coptic
330 Folwell Hall

COPT 5001 Elementary Coptic
3 credit(s); 
Instructor: Sellew, Philip
Description: Coptic is the final form of the ancient Egyptian language, written in the Greek alphabet, and employed mostly by the Christians of Egypt. Many important religious and philosophical writings from antiquity, including such famous works as the Gospel of Thomas, survive mostly or only in the Coptic language. In this one-semester course we gain a basic understanding of Coptic grammar, syntax, and vocabulary. A second course (5002) offered in the Spring semester will give students a chance to read some of the highlights of Coptic literature, such as the Life of Antony, the Sayings of the Desert Fathers, magical spells, or selections from the so-called Nag Hammadi Library. Previous study of an ancient language is recommended, but anyone with a strong interest in Coptic culture or Egyptian language is encouraged to enroll.
Style: 25% Lecture. exercises and class discussion of basic linguistic structures.
Grading: 20% final exam, 40% class participation, 40% other evaluation. Daily homework and bi-weekly tests.
Exam Format: Translation and grammatical analysis of Coptic texts.

Cultural Studies and Comparative Literature
235 Nicholson Hall

CSCL 1001 Introduction to Cultural Studies: Rhetoric, Power, Desire
4 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Diversity and Soc Justice US; 
Instructor: Brown Jr, Robert L
Description: How did we become who we are? How did we become “women” or “men,” “gay” or “straight”? Where did we get our tastes in clothes, food, music, and decorative arts? And, where did we get our political, religious and philosophical beliefs, our sense of what’s logical, natural, and believable? Cultural
Studies assumes that the world around us (our culture) means, and that its meanings are central in creating us—individually and collectively. And it assumes culture can be "read." CSCL 1001 explores cultural texts, examining "texts" around us: music videos, television and film, some paintings and photographs, magazine ads, poetry, a graphic novel, science and science journalism, and some "practices" from everyday life: dress, manners and body decoration. The "rhetoric" of culture transmits a view of the world and our loyalty to that view. Its systems of "power" hold us and our texts into large, historical conversations and struggles over ideas and social positions. And the operations of "desire" direct who and what we love, where we find pleasure and how these pleasures figure in the process of making and reproducing culture. It's a basic course for majors and non-majors interested in making sense of their worlds.

**Style:** 20% Lecture, 20% Discussion, 60% Small Group Activities, 20% Web Based. Active-learning class with participation figuring largely in grade. On-line community / blog activity throughout course.

**Grading:** 15% final exam, 30% special projects, 20% journal, 15% class participation, 20% other evaluation. Many engaging, short, blog-based and group activities throughout the course. Do what we tell you, and you'll do just fine.

**Exam Format:** open-book; short, guided answers

**CSCL 1101 Literature**

4 credit(s); Meets CLE req of Literature; Instructor: Dooghan, Daniel M

**Description:** This course is an introduction to the field of Comparative Literature. As a discipline, Comparative Literature takes whole of global literary history as its object, and does not limit itself to a single period or language, as do other types of literary studies. As a result, Comparative Literature has the unique task of investigating the underlying structures of literature and their ability to express similar ideas in otherwise dissimilar places. In short, Comparative Literature asks how literature works and why it seems to work everywhere. In the course, students will learn the basic methodologies of comparative literary study. In addition, students will learn the basic historical and philosophical concepts that are fundamental to Comparative Literature. The course covers a broad variety of texts from several historical periods and geographical places so students will have the opportunity to practice applying the comparative frameworks learned in class. The course will prepare students not only for further study in Comparative Literature, but also for any endeavor that requires a historical or global perspective.

**CSCL 1201 Introduction to Cinema and Media Culture**

4 credit(s); Credit will not be granted if credit has been received for: SCMC 1201; Meets CLE req of Arts/Humanities; Instructor: STAFF

**Description:** The emergence of what is variously referred to as the "Information Age" and "Society of the Spectacle" has made it necessary for us to think critically about the media. Since visual media have the most pervasive influence on our everyday lives, this course will focus on how forms such as advertising, film, and television work, affect perception, and structure meaning. We will read some of the most important theoretical and historical texts that provide insight into our "ways of seeing." No prior exposure to media theory is expected, but although this is an introductory class, students will be expected to read and work through challenging material. We will read a variety of critics who have attempted to analyze cinema and media culture and we will also begin to develop a vocabulary for formal visual analysis.

**CSCL 1301W Reading Culture: Theory and Practice**

4 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Writing Intensive; Instructor: STAFF

**Description:** CSCL 1301W Reading Culture: Theory and Practice 4 credits, meets Lib Ed req of Other Humanities Core; meets Lib Ed req of Writing Intensive Instructor: STAFF

**Description:** This course turns on one central question: How do things 'mean'? Specifically, how do cultural texts mean in relation to each other and human life in society and across history? 'Cultural texts' are made objects and forms of communication that encode messages and values, and that produce effects—anything from movies, TV shows, magazine ads and rock concerts to 'high art' (paintings, classical music, plays, poems, etc.). The course specifically examines: (1) the role played by cultural forms in creating, maintaining or challenging social boundaries and power relationships; and (2) the ways art and culture function as sites where creative and alternative visions of the 'good life' come into being. Small classes emphasize close reading, discussion, and practice in critical writing. An introduction to some texts in every successive class, followed by a guided place to start thinking about what "culture" is and how it works. It will also help you develop reading and writing techniques useful for many courses and majors. Class Time: 40% lecture, 60% discussion

**CSCL 1401W Reading Literature: Theory and Practice**

4 credit(s); Meets CLE req of Literature; meets CLE req of Writing Intensive; Instructor: STAFF

**Description:** CSCL 1401W Reading Literature: Theory and Practice 4 credits, meets Lib Ed req of International Perspective Theme; meets Lib Ed req of Literature Core; meets Lib Ed req of Writing Intensive Instructor: STAFF

**Description:** What is Literature? How do definitions of it differ over time and across cultures? How does literature play a role in the ways people see themselves and others? How do our histories - personal and cultural - determine how we read it? CSCL 1401W examines such questions in relation to larger patterns of culture and power. You'll emerge from the course with a solid sense of the differences among various genres, and the cultural contexts from which they arise - between an epic poem emerging from a Greek city state and a novel by a German civil servant, say. Small classes emphasize close reading, discussion, and practice in critical writing. An introductory course in every sense, it will give you a good sense of the field of Comparative Literature as well as reading and writing skills useful in many other courses and disciplines. Class Time: 40% lecture, 60% discussion

**CSCL 1501W Reading History: Theory and Practice**

4 credit(s); Meets CLE req of Writing Intensive; Instructor: STAFF

**Description:** CSCL 1501W Reading History: Theory and Practice 4 credits, meets Lib Ed req of Historical Perspective Core; meets Lib Ed req of Writing Intensive Instructor: STAFF

**Description:** What is history - is it what we get on The History Channel, or is it something else? Who controls it, who decides what gets included and what's important? Why has history become such a hot political topic - textbooks in schools, for example? This course examines such questions, starting from two assumptions: (1) that history can have explanatory power—it can tell us why things got to be the way they are; but (2) that all history comes to us in a mediated way, that is, as a "text" that encodes someone's or some group's version of it. Small classes focus on reading a variety of texts "in" history - the Mall of America, a Nazi rally, a 17th century Dutch painting; "history on television," the representation of the human body, etc., as well as some critical theory "about" history, designed to help you think about its importance, its uses and abuses. Class Time: 40% lecture, 60% discussion

**CSCL 1909W Freshman Seminar**

A-F only, 3 credit(s), max credits 6; prerq Fr; Meets CLE req of Global Perspectives; meets CLE req of Writing Intensive; Instructor: Tageldin, Shaden M

**Description:** Empire may seem a world away--removed in time (a relic of pre-1960s history) or removed in space (something that affects only the so-called "Third World"). But empire is, in fact, at least as close as your living room, your TV sets and computer screens, and sometimes it speaks a language very familiar to us as students: coverage of the U.S. occupation of Iraq, for example, has brought us images of U.S. army officers not just shooting on the ground but also pointing at the blackboard, "teaching" Iraqi police how to reinvent their country as an American-style democracy with freedoms of religion, conscience, and speech. In this seminar, we will try to better understand why education and empire remain so closely linked today by studying cultures, both
close to home and faraway, that have experienced foreign domination as a two-faced process: a process, in the words of Senegalese novelist Cheikh Hamidou Kane, whose cannons force the body and whose schools fascinate the soul. We will discuss novels, essays, poems, and films by African, Arab, Asian, immigrant, minority, and working-class writers who use classroom scenes to represent empire and a range of responses to its power—ambivalence, assimilation, resistance, revolt. Along the way, we also will think about what we can take from our “own” education they take control. Readings may include Kane, Chaahine, Ahmed, Dangarembga, Salih, Jussawalla, Narayan, Anzaldua, hooks, and others. Open to first-year majors and non-majors.

CSCL 1921 Introduction to Film Study
4 credit(s); Credit will not be granted if credit has been received for: ARTH 1921W; Meets CLE req of Arts/Humanities;
Instructor: STAFF
Description: This course is about movies—what they are, how they work, and ways we can watch, read, and enjoy them with a critical eye. Our basic questions are: How do films make meaning? How do they construct a world for us, while (often) giving the impression that that constructed world is natural and inevitable? How do films position us as viewers and shape us as subjects? What is the relation between the film text and the political economy of the industry? We’ll look at a wide variety of films from different times and places and consider some of the rich diversity of writing known collectively as Film Theory. This is a basic introductory course designed for those who love going to the movies, but want to understand them better.

CSCL 3115 Cinema and Ideology
4 credit(s); Meets CLE req of Arts/Humanities;
Instructor: Johnson,Kjel Wayne
Description: This course situates the cinema as a powerful and meaningful social institution, and examines the complex relations it maintains with the ideological practices that define both the form and the content of its products. The cinema has always opened itself to representing, refracting, and projecting the politics and anxieties of specific times and places, and has always been an equally ideal vessel for the transmission of ideals, dreams, political messages, stereotypes, and antagonisms. In short, for all manner of things?ideological, and more often than not with the alibi of being nothing more than?mere entertainment. From the flickering silent images of the first cinematic texts to the spectacle of contemporary Hollywood blockbusters, from wartime propaganda to educational films, from anthropological documentary to emergent cinemas seeking to reestablish cultural and national identities in the post-colonial, arguably post-modern age, we will examine a breadth of films to study how the cinema and mass culture contribute to the process of shaping the beliefs and identities of citizens and subjects. In the process, we will spend considerable time examining questions of political economy, identity, class, race, censorship, spectatorship, and even the contested and slippery concept of ideology itself: seeking to complexify and problematize our understanding of what it is, how it functions, and how the cinema, within the vast networks of media and information we confront today, still serves an essential political purpose. Ultimately, this course will consider not only cinema?and ideology, but cinema as ideology.

CSCL 3172 Music as Discourse
3 credit(s); Meets CLE req of Arts/Humanities;
Instructor: Leppard,Richard
Description: The real or imagined power of music (whether for evil or good) as well as its social uses, and its psychic and cultural meanings have been the subject of human reflection—and anxiety—from Plato to the present. This course will examine the ways in which music can be considered a "discursive practice," i.e., how music participates in the formation of social norms, as well as human consciousness, identities, and attitudes toward the self and others; and how and for what purposes music is used (and who) distinguishes "music" from "noise"; and why some musics are policed and censored. Two comments by the modern philosopher of music, Theodor Adorno, nicely frame what this course is about: "I believe in the strict knowability of music, because music is itself knowledge, and in its way very strict knowledge"; and "As soon as one starts to discuss music, one enters the realm of thought, and no power on earth has the right to silence this." Blues, country, r & b, punk, rock, jazz, opera, orchestral, and other musics.

CSCL 3173W The Rhetoric of Everyday Life
3 credit(s); Meets CLE req of Civic Life and Ethics; meets CLE req of Writing Intensive;
Instructor: Licht,Melissa Vera
Description: What is life for human creatures today? What institutions and social practices shape the everyday experience of life? Is everyday life something meaningful or banal, something we would fight to protect, or something we would fight to change? This course will explore the ways stories, ideas, cultural production, patterns of consumption, and forms of labor frame the meaning of everyday life. We will read and write about theoretical texts, oral histories, stories, advertisements, personal networking sites, and printed memoirs that attempt to describe the forms of experience that characterize our everyday lives. We will use these readings to enrich our analysis of how everyday things appeal to our senses of enjoyment and meaning in life. The class will also offer you the option to actively intervene in public life through service learning at an off-campus community organization that works towards positive change in contemporary culture.

CSCL 3175 Comedy: Text and Theory
3 credit(s); Meets CLE req of Arts/Humanities;
Instructor: Opitz,Andrew Michael
Description: This course should be fun! Many of the materials we will read and watch are trying to be funny, even if they do not always succeed. However, this is also a course that sets out to take comedy and laughter seriously. Students will study a mix of theater, film, and TV texts, along with scholarly works of cultural theory, in hopes of gaining a better understanding of what comedy is and how it functions in our society. We will trace the historical development of comedy from the ancient world to modern Hollywood. We will examine the mechanics of comedy. How do comedies play with our expectations and make us laugh? We will also study the cultural politics of comedy. How does comedy fit into our daily lives, our leisure activities and our political debates? If we find it funny, what makes it funny? If we find it offensive, what makes it offensive? Please be advised that some of the comedies we examine will be rude, gross and disrespectful. If you are easily offended by salty language, sex and other hilarious bodily functions, this may not be the course for you. Texts may include plays by Aristophanes and Moliere, satires by Voltaire, films by Charlie Chaplin and Judd Apatow, stand-up routines by George Carlin and Sarah Silverman, TV shows including The Daily Show and South Park, and satirical publications like The Onion.

CSCL 3176 Oppositional Cinemas
4 credit(s); Meets CLE req of Global Perspectives;
Instructor: Lekas,Michelle Yvonne
Description: Student may contact the instructor or department for information.

CSCL 3177 On Television
4 credit(s);
Instructor: Labidi,Imed
Description: That the impact of television on our daily life, political views, and social habits is stronger than ever before is perhaps unarguably correct. Television, consumer society, and the culture of commercialism, as Benjamin would argue replaced the real world by representations of the real. Sustained with the rapid reproduction and replication of auditory and visual images,
CSCL 3177 On Television
4 credit(s);
Instructor: Hudecova, Eva Ruth
Description: It was the German theoretician Theodor Adorno who argued that the manner in which members of advanced industrial societies spent their "free time" had in fact nothing to do with relaxation and was only a way to keep the working citizen in a regular routine. Watching TV at night after a long days' work had no enjoyment in it. The TV-viewer did not "collect" any food for thought or discussion. It was a bland, brainless activity that gave the worker the illusion of not having worked while in actuality being a mere extension of work. TV, with its own specific routine prepared the viewer for the routine of the coming day. These are the kinds of -- still widely believed -- reservations a course dealing with a critical examination of the current world of TV and TV criticism will have to face. Some of the examined questions will be: What is entertainment? What makes the private watching of TV in our living rooms TV different from other forms of entertainment? Is TV a useful escape from the world or is it a dangerous threat to the world? Or, is TV, as a key element of reality, filled with contradiction and struggle? TV mediates relationships, whether it is on the inter-personal level, between races, classes, or in our relationship to technology. It is constantly changing. It is the largest export of the USA. And, as many have argued, it is one of the most important nation-building factors in the USA. TV has made the private public in a way no other medium heretofore ever has. These are just a few of the reasons to build a critical vocabulary and develop a watchful eye towards something that takes up significant sections of the day for many of us.

CSCL 3321W Theories of Culture
3 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Writing Intensive;
Instructor: Ganguly, Kaya
Description: Student may contact the instructor or department for information.

CSCL 3456W Sexuality and Culture
3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Writing Intensive;
Instructor: Hudecova, Eva Ruth
Description: What is sexuality? Is it something natural and innate within us or is it something constructed and administered from the outside? Why do we care whether Adam Lambert is gay, straight, or otherwise, or if Tom Cruise really impregnated Katie Holmes "the old-fashioned way"? Does sexuality reveal to others the mystery of our "essential being," or does it reveal more about the cultural-historical moment defining it? We are shocked, shocked, shocked to see 16-year-old Miley Cyrus gyrating on a stripper pole, yet collectively watch over and over again (courtesy of youtube and cable "news") replays of the juiciest (I mean most shocking) parts! Is any of this related to our fascination with the "capture" of accused "predators"? Finally, how do we know if our sexual desires and experiences are "natural" or "unnatural", "normal" or "perverse". As religious and legal concerns surrounding the punishment of aberrant, sexual behaviors were gradually supplanted by societal and medical concerns surrounding the (purportedly rehabilitative) treatment of aberrant sexual "species" of human beings, sexuality itself came to be understood not only as the key to unlocking the identity of the modern individual, but as the linchpin through which modern subjectivity could be constituted, shaped and governed. Looking beyond questions of representational truth, this course explores the modern history of sexuality in the West, examining and theorizing the relationship between the abstract ways in which we have understood it and the concrete, material ways in which we have subsequently lived it. Readings will include the psychoanalytic writings of Sigmund Freud and Jessica Benjamin, the historical accounts of Barbara Ehrenreich and Deirdre English, and the historical-critical analyses of Michel Foucault and Susan Bordo. Alongside our readings, we'll "talk sex" with Dr. Sue Johnson, ask John Gray why men can't be from Venus, get our spank on with James Spader, catch some predators with Dateline NBC, mosey over to the Yearning for Zion ranch, and last but not least, take in a child beauty pageant or two.

CSCL 3456W Sexuality and Culture
3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Writing Intensive;
Instructor: Dooghan, Daniel M
Description: Student may contact the instructor or department for information.

CSCL 3456W Sexuality and Culture
3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Writing Intensive;
Instructor: Stoddard, Matthew Donald
Description: Student may contact the instructor or department for information.

CSCL 3456W The Body and the Politics of Representation
3 credit(s); Meets CLE req of Writing Intensive;
Instructor: Gasterlind-Gustafsson, Gretchen
Description: We will in this course investigate the history of representations of the human body, primarily Western European representations from about 1500 to the present, and later American representations, What are the roles and positions that the body has occupied in Western thought, philosophy and cultural practice and why have certain positions attained a privileged status over others? How has the corporeal body been shaped, formed molded, and adorned to conform to the changing historical demands and ideals of society? What is the experience of embodiment in these given cultural contexts? We will address these questions to a wide range of materials including visual art in the forms of film, photography, performance, installations, oil paintings, and sculptures, as well as literary representations. In order to facilitate discussion and enhance class participation, every week a group of students will be responsible for a 20 minute presentation designed in conjunction with the instructor to both add to and compliment the materials examined that week. Other requirements are short weekly response papers, a midterm essay, and a final paper and presentation.

CSCL 3461 Monsters, Robots, Cyborgs
3 credit(s); Meets CLE req of Literature;
Instructor: Opitz, Andrew Michael
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL, policies, including fee and financial aid restrictions. This course proceeds from the assumption that
monsters and monster stories are more than just scary entertainment; they have something to teach us. Monsters speak to our fears, of course, but they can also tell us about the changing social world in which we live—its pressures, relations of production/reproduction and models for correct behavior. Since monsters are almost always "outsiders," monster stories can also tell us something about rules for social belonging. This course will enlist students in the careful and critical reading of a number of monster, robot and cyborg stories in hopes gaining a better understanding of their historical origins and changing cultural meanings. We will examine select literature, film, and history texts, as well as scholarly essays addressing key issues in cultural theory, in an effort to make sense of these monstrous beings and their important place in popular culture.

Style: 100% Web Based.

Grading: 20% final exam, 20% reports/papers, 10% special projects. -4 reading tests (20%) -10 discussions (10%) -1 textual analysis essay (20%)

CSCL 3465 Aliens
3 credit(s);
Instructor: Hadley, Matthew James
Description: Student may contact the instructor or department for information.

CSCL 3472 Gay Men and Homophobia in American Culture
3 credit(s); Meets CLE req of Diversity and Soc Justice US;
Instructor: Lekas, Michelle Yvonne
Description: This course operates on the premise that, whether one identifies as G, L, B, T or other, homosexuality, and its perverse reaction, homophobia are linchpins to understanding what happens around us and what exists as part of our culture. Understanding this, we will look at homosexuality/homophobia from historical, theoretical, and psychoanalytic perspectives. This course genuinely requires a good deal of student participation and also a willingness to keep up with course readings (from Foucault, Freud, Halperin, Anderson, Miller and others) that cover areas from ancient Greece to the NFL and to think creatively and openly. We will screen one narrative film and two documentaries. Evaluation will be based on one essay, one group presentation, a multiple choice final, and class participation.

CSCL 3557W Close Reading
3 credit(s); Meets CLE req of Literature; meets CLE req of Writing Intensive;
Instructor: Pepper, Thomas Adam
Description: The aim of this course is to make students attentive to the structures—lexical, grammatical, rhetorical—of pieces of language. While today’s students are confronted with a plethora of information, this does not at all mean that they are prepared for organizing, analyzing, criticizing, and understanding this information. It is more important than ever to show students how to become more attuned to the language which encroaches upon them every day, as well as the language they themselves produce. Knowing implies doing. This is not a lecture course. It is writing intensive. Students are presented with a series of literary, critical, philosophical, and political texts. Both in the dialogic format of the classroom, as well as in several short writing exercises, the students learn to approach verbal language not as something transparent and the meaning of which is given at a glance, but which, on the contrary, is made up of ambiguities, metaphors, unfamiliar words, significant repetitions, allusions, breaks in structure, and elements that resist being reduced to a simple meaning that merely represents a state of affairs in the world.

Style: 30% Lecture, 70% Discussion.
Grading: 10% final exam, 60% reports/papers, 30% class participation.
Exam Format: essay

CSCL 3910 Topics in Cultural Studies and Comparative Literature: Pragmatism
3 credit(s), max credits 24, 8 completions allowed;
Instructor: Sarles, Harvey B
Description: The present moment is?interesting, important, and calls out for us to reframe the future of Democracy and Education. In addition, the question of what and who is a human being surfaces: the ideas the self, what and how we know, has been primary to much of our thinking about the world. In this odd political/economic/religious/educational moment, the works and thoughts of John Dewey and G.H. Mead and other American Pragmatists resurface. As Dewey was the primary shaper and practitioner of public schools, secular education, and progressive politics, he is also the "fall guy" of various attacks against democracy and public education. Pragmatism will take on Dewey’s tasks, reframed in these times. We will discuss ideas, primarily through his book: Democracy and Education?The course will ask us to see where we are, how we got here, and attempt to shape?as Dewey would have us do?the future toward a participative democracy. Mead’s book, Mind, Self, and Society?will frame the questions of who and how we are. Mead’s ideas have recently re-entered our world via?Attachment Theory?in Child Development: humans are primarily interactional?the self?emerges from the relationship between infant and m/other. This is very different from most of our thinking about the human, and raises many questions not only about how we are, but offers a critique of the dualistic ideas of mind and body which continue to dominate the study of the human. Having discovered not very long ago, that we all have minds/other, the notion of the self will help us (as Dewey put it) to reconstruct?philosophy. We’ll read excerpts (as useful) from some of his line of thought (Birdwhistell, Goffman, Sarles), and how they derived from early American Pragmatists. C.S.Pierce and Wm James. Texts: ?Democracy and Education? by John Dewey. ?Mind, Self, and Society? by G.H. Mead Course Requirements: Final Essay/Project in consultation with Professor Sarles.

Style: 100% Discussion.
Grading: 80% reports/papers, 10% attendance, 10% class participation.

CSCL 5147 Teaching as Dialogue
3 credit(s);
Instructor: Sarles, Harvey B
Description: Teaching as Dialogue explores teaching as a form of dialogue between teacher and students, as process and politics. As dialogue, the teacher engages students and subject matter as ways of interacting with one another's knowing, thinking, and doing. Students in this course will read and discuss a variety of aspects of teaching: how to engage students, how to remain engaged in one's own teaching; how to move a course forward; to continue to grow intellectually while moving students toward their own futures. How to get the audience to vote grades and judgments and thinking critically. We will explore differences between the idea and practice of teacher as lecturer, as facilitator, and as someone who enters into dialogue: both as methods and as ways of being a teacher. Students will also be invited to observe and to interact with the instructor in the context of a large class. Readings will include Paulo Freire's Pedagogy of the Oppressed, Sarles' Teaching as Dialogue, some of Plato's dialogues (Apology, Phaedrus), and other works we find useful or important. A course essay or project is required.

Style: lecture/dialogue
Grading: 60% reports/papers, 40% class participation.
Exam Format: None

CSCL 5154W Theoretical Constructions of Space
3 credit(s); Meets CLE req of Writing Intensive;
Instructor: Archer, John
Description: People conceptualize, understand, fashion, and make use of the space in which we all exist in a variety of ways, the diversity of which becomes evident when examined across time and disciplines. The goals of this class are to obtain a sense of several principal strands of spatial thinking that have come to inform our present culture; and to inquire into the interests that they serve and sustain. Or, to put it differently, our agenda concerns the manners in which space articulates and sustains the interests and purposes of society. Our inquiries are located in various disciplines, including anthropology, architecture, geography, history, landscape design, philosophy, planning, and sociology. The readings concentrate on the Western
Enlightenment heritage from Locke to the late 20th century, including phenomenological, structuralist, poststructuralist, Marxist, feminist, and materialist perspectives. Student projects are encouraged. This course analyzes other temporal, geographic, and theoretical modes of space in order to understand limitations of present formulations, and explore ground for new potentials. **Style:** 45% Lecture, 35% Discussion, 5% Small Group Activities, 15% Student Presentation. **Grading:** 60% reports/papers, 10% class participation, 30% other evaluation. The 30% "other" consists of exams - 2@15% each (undergrad students only); 30% leading class discussion (grad students only) **Exam Format:** short essay

CSCL 5411 Avant-Garde Cinema

**A-F only, 4 credit(s); prereq 1921 or ARTH 1921W or equiv; Instructor: Bizi, Hisham M.**

**Description:** In film and art in general ???avant-garde? is used to describe a work that breaks new ground in order to define a new way of seeing the world and thus of living in it. In this course we will study the history and theory of American avant-garde cinema from the classical to the post-war period. We will look at film prints because what makes an avant-garde film is the materiality of film itself, used partly as a way to demystify the filmic process but more importantly as a way to create radical thought and emotion through the impact of the projected film on the retina. The course will cover various avant-garde films, or what is sometimes called experimental, alternative, underground, or abstract films from a variety of perspectives: What is specifically called filmic cinema since many of these films are abstract or abstract and did not even go through a camera? How do we "see" and what? Is seeing and believing the same thing? Do these films expand our understanding of what cinema is and thus our consciousness? What is the relationship between the old avant-garde (personal and exclusive) and the new avant-garde (public and institutional)? How does avant-garde film get incorporated in what is called "independent" cinema as well as commercial cinema and thus the relationship that arises between the marginal/radical in artistic practice and the dominant? What are the ethical paradigms and implications of avant-garde cinema? Does iconoclasm mock traditional morality? What is the role of time and narrative in "flatness"? What is the formal or symbolic truth of this cinema? What is the value and purpose of such films? And last but not least, what is the relationship between avant-garde cinema and the American philosophical, poetic and musical traditions. Some of the filmmakers we will study are: Joseph Cornell, Peter Kubelka, Marie Menken, Stan Brakhage, Ian Hui, Kenneth Anger, Gregory Markopoulos, Warren Sonbert, Hollis Frampton, and Ernie Gehr. If time permits, we will look at films by Christopher Maclaine, Jack Smith, Arthur Lipssett, and Andy Warhol. **Style:** 30% Lecture, 30% Film/Video, 20% Discussion, 20% Student Presentation. **Grading:** 40% reports/papers, 30% attendance, 30% in-class presentation.

CSCL 5711 Sociocriticism

**3 credit(s); Instructor: Mowitt, John W**

**Description:** What does it mean to say that a text reflects its context, specifically, that literature reflects society? Is literature nothing more than a mirror of something outside of it to which it owes both its meaning and its existence? Is all literature, then, the most experimental, realistic? And if literature is this reflection, what must literary criticism and theory do in order to engage it? These questions will be examined first by considering the movement from which our course derives its title, la sociocritique. From there we will turn back to examine some of the key figures in the tradition of the sociology of literature: Bakhtin, Benjamin, Goldmann, Kristeva, Lukacs, Macherey, Sartre, Said and Williams. Our aim is twofold: to understand how these figures engage the questions posed above, and to shed light on the forgetting that makes cultural studies seem like a discovery of the sociology of culture. **Style:** 60% Lecture, 40% Discussion. **Grading:** 100% reports/papers.

**Exam Format:** There are none

CSCL 5910 Topics in Cultural Studies and Comparative Literature: Kittler & German Media Theory

**3 credit(s), max credits 24, 8 completions allowed; Instructor: Hueser, Rembert**

**Description:** Student may contact the instructor or department for information.

CSCL 5910 Topics in Cultural Studies and Comparative Literature

**3 credit(s), max credits 24, 8 completions allowed; Instructor: Rother, Matthias**

**Description:** Student may contact the instructor or department for information.

**Curriculum and Instruction 145 Peik Hall**

CI 1001 Introduction to the Elementary School

**A-F only, 3 credit(s); Instructor: Hansen, Sarah Elizabeth**

**Description:** Student may contact the instructor or department for information.

CI 1001 Introduction to the Elementary School

**A-F only, 3 credit(s); Instructor: DeLapp, Peggy Reed**

**Description:** This course is intended to be a beginning course for undergraduate students considering a career in elementary education. Students examine various aspects of elementary schools and teaching, including school contexts and organization, standards, curriculum, assessment, policy, culture and diversity, contemporary students, and the role of the teacher. The course includes school visits. **Style:** 30% Lecture, 40% Discussion, 15% Laboratory. **Grading:** 13% mid exam, 25% final exam, 32% reports/papers, 15% special projects, 15% class participation. Course includes group projects. **Exam Format:** Multiple choice, short answer

CI 1903 Freshman Seminar: Citizenship and Public Ethics: Intentional Community for Social Change

**1-3 credit(s), max credits 6; prerequisite FR; meets CLE req of Civic Life and Ethics; Instructor: Englund, Lynn A.**

**Description:** For thousands of years, humans have imagined a "better" life for themselves, their families, and society. For some, this gap between how life was and how they imagined it could be motivated them to organize communities according to their highest aims and ideals in an attempt to improve life for individuals and families involved in the community. Students in this class will research a variety of intentional communities (e.g., temporary communities such as Burning Man, eco-villages, communes, co-housing, spiritual/religious communities, utopian communities) to a) examine various social contexts that spurred the formation of the community, b) analyze how the organization of the community oriented formal and non-formal education and social learning of individuals and families who participated in the communities, and c) seek to understand what participants' experiences (positive and negative) were like. The course also asks students to search broadly and to critically reflect on whether the community had an educational effect beyond the immediate participants of the community and to explore in what ways the intention of the community has extended beyond the boundaries of the community. This course meets the University's designated theme of citizenship and public ethics. **Style:** 10% Film/Video, 40% Discussion, 20% Small Group Activities, 20% Student Presentation, 10% Guest Speakers. **Grading:** 30% reports/papers, 30% special projects, 40% reflection paper. In-class presentations are included in projects and reports/papers. Regular class participation is expected.
CI 2311W Introduction to Technology and Ethics in Society
3 credit(s); prereq credit will not be granted if credit already received for: WHRE 3011W or CI 3311W; Credit will not be granted if credit has been received for: CI 4311W; Meets CLE req of Civic Life and Ethics; meets CLE req of Writing Intensive;
Instructor: Pazurek, Angelica
Description: Student may contact the instructor or department for information.

CI 3212 Sex, Drugs, and the Internet: Educational Perspectives
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: CI 4312; Meets CLE req of Technology and Society;
Instructor: Pazurek, Angelica
Description: Student may contact the instructor or department for information.

CI 3001 Survey of Art Activities
A-F only, 2 credit(s);
Instructor: Delisle, Heather A
Description: Student may contact the instructor or department for information.

CI 3211 Introduction to Elementary Teaching
A-F only, 3 credit(s); prereq [Elementary ed or early childhood ed foundations major], concurrent practicum experience;
Instructor: Byrn, Katherine Margaret
Description: Student may contact the instructor or department for information.

CI 3211 Introduction to Elementary Teaching
A-F only, 3 credit(s); prereq [Elementary ed or early childhood ed foundations major], concurrent practicum experience;
Instructor: DeLapp, Peggy Reed
Description: Student may contact the instructor or department for information.

CI 3283 Practicum: Special Education K-6
S-N only, 2 credit(s); prereq Concurrent registration is required (or allowed) in EDPSY 5613, Concurrent registration is required (or allowed) in EDPSY 5616, elementary education: foundations major;
Instructor: Fautsch-Patridge, Terri
Description: Student may contact the instructor or department for information.

CI 3401 Diversity in Children’s Literature
A-F only, 3 credit(s); prereq Jr or sr or instr consent;
Instructor: Rapport, Rebecca T
Description: Student may contact the instructor or department for information.

CI 3401 Diversity in Children’s Literature
A-F only, 3 credit(s); prereq Jr or sr or instr consent;
Instructor: Galda, Lee
Description: Classic/contemporary books for children in all genres, created by authors/illustrators. Research in transactional theory. Cultural authenticity. Reading, discussion, group activities, interactive lectures, projects.

CI 3401 Diversity in Children’s Literature
A-F only, 3 credit(s); prereq Jr or sr or instr consent;
Instructor: Caussey, Lauren L
Description: Student may contact the instructor or department for information.

CI 4311W Technology and Ethics in Society
3 credit(s); prereq credit will not be granted if credit already received for: CI 3311, WHRE 5011W; Credit will not be granted if credit has been received for: CI 2311W; Meets CLE req of Civic Life and Ethics; meets CLE req of Writing Intensive;
Instructor: Pazurek, Angelica
Description: Student may contact the instructor or department for information.

CI 4312 Sex, Drugs, and the Internet: Educational Perspectives
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: CI 2312;
Instructor: Pazurek, Angelica
Description: Student may contact the instructor or department for information.

CI 4413 Practicum: Working With Developing Readers
S-N only, 2 credit(s); prereq 5413, elementary education foundations major;
Instructor: Frederick, Amy Rae
Description: Student may contact the instructor or department for information.

CI 4413 Practicum: Working With Developing Readers
S-N only, 2 credit(s); prereq 5413, elementary education foundations major;
Instructor: Heins, Madeleine Sarah
Description: Student may contact the instructor or department for information.

CI 4413 Practicum: Working With Developing Readers
S-N only, 2 credit(s); prereq 5413, elementary education foundations major;
Instructor: Mahowald, Megan Catherine
Description: Student may contact the instructor or department for information.

CI 5008 Theory and Practice of Teaching Art in Elementary Schools
A-F only, 1-2 credit(s), max credits 3, 1 completion allowed;
Instructor: Delisle, Heather A
Description: Art concepts, skills, and processes appropriate for elementary school. Methods of art instruction. Children's production of/responses to art.

CI 5008 Theory and Practice of Teaching Art in Elementary Schools
A-F only, 1-2 credit(s), max credits 3, 1 completion allowed;
Instructor: Johnson, Jeremy L
Description: Student may contact the instructor or department for information.

CI 5065 Improving Art Programs in the Schools
A-F only, 3 credit(s); prereq Initial lic students majoring in art ed;
Instructor: Bequette, James W
Description: Issues of art instruction, including teaching methods and evaluation, philosophical frameworks of pedagogy, and institutional issues concerning art programs in primary and secondary schools; social and cultural structures of schooling, practical issues of teaching art.

CI 5069 Curriculum Innovations in Art Education
A-F only, 3 credit(s);
Instructor: Clover, Faith M.
Description: Study and analysis of innovations; evaluation of materials for teaching units and projects.

CI 5086 Art Education: Practicum
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
Instructor: STAFF
Description: Issues of art instruction, including teaching methods and evaluation, philosophical frameworks of pedagogy and institutional issues concerning art programs in primary and
secondary schools. Practicum requiring students to work in a public school setting.

**CI 5155 Contemporary Approaches to Curriculum: Instruction and Assessment**  
A-F only, 3 credit(s); prerequisite Grad student only;  
**Instructor:** Casey, Zachary Anders  
**Description:** Students may contact the instructor or department for information.

**CI 5156 Popular Culture, Teaching, and Learning**  
A-F only, 3 credit(s); prerequisite Grad student or permission of instructor;  
**Instructor:** Swiss, Thom  
**Description:** Students may contact the instructor or department for information.

**CI 5177 Practical Research**  
A-F only, 3 credit(s); prerequisite CI Med student, or CI or EdPA Teacher Leadership MED student;  
**Instructor:** STAFF  
**Description:** Preparation for identifying a research and development topic, reviewing the existing knowledge on the topic, planning and carrying out a project, further investigating the topics, and writing a report on the project.

**CI 5181 Clinical Experience in Elementary School Teaching**  
S-N only, 2-8 credit(s), max credits 16, 3 completions allowed; prerequisite Foundations of education and elem ed initial license or only;  
**Instructor:** Carlson, Ann Ruhl  
**Description:** Students spend full days in the elementary classroom gradually assuming responsibility for teaching the class. Students prepare a portfolio based on criteria given. One seminar per week.  

**CI 5183 Applying Instructional Methods in the Elementary Classroom**  
S-N only, 1-2 credit(s), max credits 8, 4 completions allowed; prerequisite Foundations of ed major or elem ed initial license or only;  
**Instructor:** Jacobson, Mary J.  
**Description:** Supervised experience in elementary classrooms.

**CI 5186 School-Related Projects**  
A-F only, 1-4 credit(s), max credits 4, 1 completion allowed; prerequisite MED student;  
**Instructor:** STAFF  
**Description:** Research or evaluation project related to teaching, curriculum, or other aspect of schooling. Approved and supervised by faculty advisor.

**CI 5187 Practicum: Improvement of Teaching in Elementary or PreKindergarten Schools**  
S-N only, 2-3 credit(s), max credits 3, 1 completion allowed; prerequisite MED student in elem or early childhood ed;  
**Instructor:** STAFF  
**Description:** Elementary school classroom teaching project designed to improve specific teaching skills. Approved and directed by advisor.

**CI 5190 Directed Individual Study in Curriculum and Instruction**  
1-6 credit(s), max credits 12, 12 completions allowed; prerequisite Grad student, instr consent;  
**Instructor:** STAFF  
**Description:** Directs students to individual studies that focus on producing and evaluating curriculum materials; literature reviews, and other studies related to instruction.  

**CI 5303 Data Analysis and Information Design for Business and Education**  
3 credit(s); prerequisite credit will not be granted if credit already received for: BIE 5013;  
**Instructor:** Cherry, Jennifer E  
**Description:** Student may contact the instructor or department for information.

**CI 5325 Designing and Developing Online Distance Learning**  
A-F only, 3 credit(s); prerequisite CI 5351 or CI 5362 recommended;  
**Instructor:** Doering, Aaron H  
**Description:** Students research, use, and evaluate technologies for distance learning and design their own learning environments.

**CI 5330 Topics in Instructional Systems and Technology**  
1-3 credit(s), max credits 12, 12 completions allowed;  
**Instructor:** Beach, Richard W  
**Description:** This course is designed for middle, high school, and college writing instructors in all subject matter areas who are interested in using Web 2.0 digital writing tools to help students learn to generate, organize, revise, and edit their writing. This course is supported by use of a textbook co-authored by the instructor, Teaching Writing Using Blogs, Wikis, and Other Digital Tools (2009), as well as a wiki with extensive resources and links: http://digitalwriting.pbwiki.com. It is designed to help instructors learn to employ digital writing tools such as blogs/vlogs, wikis, digital mapping, digital poetry/storytelling, digital slideshows and scrapbooks, online discussions/role-play, podcasting, VoiceThread audio commentary, PowerPoint presentations, and e-portfolios to teach writing. And, it also includes learning to use features of involved in organizing and linking digital writing: RSS feeds, tagging, comments, hotlinks, image/video embedding, and text promotion. Students will acquire the use of these tools in the course through creating or contributing to forum discussions on the class Ning, creating blog/vlog posts, digital maps, Flickr slideshows, a podcast, and digital storytelling. They will also be providing comments to each other's blog posts and developing teaching activities that involve the use of digital writing tools. And, they will reflect on their work in the course based on criteria associated with effective use of digital writing tools to improve writing quality.  
**Style:** 20% Lecture, 10% Film/Video, 20% Discussion, 10% Small Group Activities, 10% Student Presentation, 10% Demonstration, 10% Guest Speakers, 10% Web Based.  
**Grading:** 40% reports/papers, 60% journal. Journal = blog posts.

**CI 5331 Introduction to Learning Technologies**  
3 credit(s);  
**Instructor:** Doering, Aaron H  
**Description:** This course is designed to prepare you to become knowledgeable and comfortable with the field of learning technologies (LT): Upon completing this course you will understand the history of the LT field; understand what LT is all about with the theoretical foundations of the field; be able to discuss the role of LT in education and the workplace; know and understand the major debates and articles of the LT field; and be able to write, communicate, and present your knowledge of the LT field. This is a great course to begin your learning technologies experience!  
**Style:** 15% Lecture, 45% Discussion, 20% Small Group Activities, 20% Student Presentation.

**CI 5351 Technology Tools for Educators**  
A-F only, 3 credit(s);  
**Instructor:** STAFF  
**Description:** Develop skills in using selected technology applications to support teaching and learning. Internet applications, presentation software, multimedia authoring tools, desktop publishing software, Web page creation. May also include a field-site project.

**CI 5361 Teaching and Learning with the Internet**  
3 credit(s); prerequisite credit will not be granted if credit already received for: BIE 5662;  
**Instructor:** STAFF  
**Description:** Examination of the capabilities of the Internet for professional development and instructional use. Use of specific client/server software for accessing the Internet, instructional issues and opportunities; implications for K-12 student involvement and classroom management; and Web page development by teachers and their students. Previous
CI 5362 Foundations of Interactive Design for Web-based Learning
3 credit(s); prerequisite credit will not be granted if credit already received for: BIE 5016
Instructor: Donna, Joel Dominic
Description: Student may contact the instructor or department for information.

CI 5363 New Media and Interaction Design for Web-based Learning
3 credit(s); prerequisite credit will not be granted if credit already received for: WHRE 5628
Instructor: Miller, Charles DeVaughn
Description: In this course we will explore new media design from the perspective of an instructional designer. We will be designing with the Adobe Flash environment to explore the rich contexts of four authentic design problems, at the same time delving into the realms of raster and vector imaging, web video optimization, and usability analysis. Ultimately, we will focus our efforts on creating designs that are meaningful, functional, and aesthetically pleasing. We will also collaborate on investigating common design frameworks; however, you will modify these to meet and continually refine your own design perspective and style. We will follow a contemporary Role-Based framework for the design process intended to encourage innovation in the instructional design field; however, beyond that you will learn to become a better designer through discussion, collaboration, development, exploration, research, and simply... design. This course will be similar to a design studio, intended for all levels of experience from beginning designers with little to no familiarity with the Flash environment, to seasoned developers looking to ignite a fresh perspective on design.
Style: 15% Discussion, 5% Small Group Activities, 5% Demonstration, 70% Studio, 5% Guest Speakers.

CI 5365 Contemporary Software Development Issues and Tools
3 credit(s); prerequisite Familiar with standard computer/Internet operations;
Instructor: Doering, Aaron H
Description: Don't miss out on the exciting opportunity to take one of the first classes at the University of Minnesota dedicated to the exploration of iPhone and iPad App design! In this course we will design and develop several apps that address the authentic contexts of various instructional design challenges. We will also explore the unique interactive opportunities of touchscreens through a perspective of Interaction Design, a contemporary framework for design and development focused on functionality, usability, and aesthetics. This course will be similar to a design studio, intended for all levels of experience from beginning designers who have little to no familiarity with the iPhone and iPad environments, to seasoned developers looking to ignite a fresh perspective on design.
Style: 15% Student Presentation, 15% Demonstration, 70% Studio.

CI 5367 Interactive Multimedia Instruction
A-F only, 3 credit(s); prerequisite Knowledge of principles and procedures of CBI design and one multimedia authoring system;
Instructor: Miller, Charles DeVaughn
Description: In this course, we will explore a variety of common design heuristics; however, you will modify these to meet and continually refine your personal design perspective and style. We will become better designers through discussion, research, exploration, collaboration, development, and simply... design. Ultimately, we will form small design teams to explore unique instructional problems and develop, implement, and evaluate innovative instructional design solutions. Parallel to student design and development, we will examine the design lifecycle and authentic context of two Learning Technologies projects that will be in production during the Spring semester: 1) GeoThentic - an online environment that creates opportunities for students to learn with geospatial technologies by solving authentic, complex problems, and 2) AvenueDH-1 - A Flash-based progress-monitoring intervention in the area of reading, writing, and language development for use with children who are deaf or hard-of-hearing. Students with basic design and development skills in at least one of the following domains (HTML, CSS, Flash, PhotoShop, PHP/ASP, Java Script, database design, Flash Media Server, FLEX, video editing, etc.) are encouraged to sign up for the course.
Style: 20% Discussion, 40% Small Group Activities, 40% Studio.

CI 5401 Literature for the Elementary School
A-F only, 3 credit(s); prerequisite Children's literature course or instructor consent;
Instructor: Rapport, Rebecca T

CI 5405 Middle School Language Arts Methods
A-F only, 2 credit(s); prerequisite Elem ed licensure student;
Instructor: Dockter, Jessica
Description: Student may contact the instructor or department for information.

CI 5405 Middle School Language Arts Methods
A-F only, 2 credit(s); prerequisite Elem ed licensure student;
Instructor: Myers, Ryan D
Description: Student may contact the instructor or department for information.

CI 5410 Special Topics in the Teaching of Literacy
1-3 credit(s), max credits 12, 12 completions allowed;
Instructor: Lenormier, Timothy J.
Description: This course explores the politics of literacy and race in classrooms (with politics understood both as how power plays out and in relation to creating democratic forms of life in schools). Theoretical and historical resources are developed first. Bakhtin's writings on language?including his concepts of utterance, speech genre, and heteroglossia?help us explore the social life of language and literacy as they get used in different contexts by different people. Then, we take up two writers who characterize the racial situation in the US in different (but complementary) ways. Historian Matthew Jacobson helps us understand the historical fabrication, changeability, and contingencies of whiteness, with an eye to the power relations and social havoc it has generated; and the Reverend Thandeka, drawing on psychoanalytic theory and history, supports our examination of the racial identities created by our society and how these identities often undermine action that might improve our racial situation. With these beginnings, the course shifts to the close exploration of the workings of literacy and race in schools. We examine talk about race in educational settings and the larger educational community, and find that while it is often muted (as in Mica Pollock's ethnographic study), it also always has the potential of exploding into loud controversy (as in the debate over Ebonics, chronicled by Theresa Perry and Lisa Deloit). And we examine the work and lives of teachers and students in schools, with the help of Bob Fecho's writing on his attempts to teach English in progressive ways and Daniel Yon's research with youth as they create identities in 'global times.' Finally, we complicate and revise our emerging ideas one last time, as we work with texts and films chosen by members of the class. As educators, scholars, and citizens, we have responsibilities to participate intelligently and critically in conversations about school and society?especially as school and society continue to privilege some at the expense of others. The main goal and method of this course is to bring our own ideas about education, race, and literacy into dialogue with the ideas of others?other members of the class, as well as various researchers and writers. In this process, we will revise and better articulate our images of and commitments to a worthy education for all of our children and fellow citizens.

CI 5413 Foundations of Reading
A-F only, 3 credit(s);
Instructor: Frederick, Amy Rae
Description: Student may contact the instructor or department for information.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
<th>Description</th>
<th>Grading</th>
<th>Style</th>
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<tbody>
<tr>
<td>CI 5413</td>
<td>Foundations of Reading</td>
<td>Heins, Madeleine Sarah</td>
<td>Student may contact the instructor or department for information.</td>
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<tr>
<td>CI 5415</td>
<td>Literacy Development in the Primary Grades</td>
<td>Jacobson, Mary J.</td>
<td>Theory/practice of integrated teaching of reading, literature, writing, and language in primary classroom settings. Uses national/state language arts standards and assessment protocols to examine primary literacy curricula.</td>
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<tr>
<td>CI 5425</td>
<td>Reading Instruction in the Elementary Grades</td>
<td>Boehm, Eva Lynn</td>
<td>Student may contact the instructor or department for information.</td>
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<tr>
<td>CI 5427</td>
<td>Instructional Leadership in Reading in Kindergarten and the Elementary Grades</td>
<td>Peterson, Debra Stevens</td>
<td>Research-based reading instruction for elementary grades. How to help other teachers improve practice. Characteristics of effective schools within context of improving students. reading achievement.</td>
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<tr>
<td>CI 5434</td>
<td>Professional Development and Evolving Practice in K-12 Reading</td>
<td>Dillon, Deborah R.</td>
<td>Student may contact the instructor or department for information.</td>
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<tr>
<td>CI 5435</td>
<td>Instructional Leadership in Preventing Reading Difficulties</td>
<td>Coffino, Kara Lee</td>
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<td>CI 5441</td>
<td>Teaching Literature in the Secondary School</td>
<td>Lybeck, Rick Jason</td>
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<td>CI 5442</td>
<td>Literature for Adolescents</td>
<td>Brendler, Beth</td>
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<td>CI 5451</td>
<td>Teaching Reading in Middle and Secondary Grades</td>
<td>Nichols-Bese, Kristen M</td>
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<td>CI 5452</td>
<td>Reading in the Content Areas for Initial Licensure Candidates</td>
<td>O’Brien, David</td>
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<td>CI 5472</td>
<td>Teaching Film, Television, and Media Studies</td>
<td>Beach, Richard W</td>
<td>Methods of teaching film, video, and media studies at the secondary and college level, methods for eliciting critical responses; analysis of film/video techniques; analysis of cultural representations and genre characteristics; connecting and comparing film/video and literature; studying documentary and television news; developing media studies units.</td>
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<tr>
<td>CI 5475</td>
<td>Teaching Digital Writing: Blogs, Wikis, Online Talk, Podcasting, and E-Portfolios to Teach Writing</td>
<td>Beach, Richard W</td>
<td>This course is designed for middle, high school, and college writing instructors in all subject matter areas who are interested in using Web 2.0 digital writing tools to help students learn to generate, organize, revise, and edit their writing. This course is supported by use of a textbook co-authored by the instructor, Teaching Writing Using Blogs, Wikis, and Other Digital Tools (2009), as well as a wiki with extensive resources and links: <a href="http://digitalwriting.pbwiki.com">http://digitalwriting.pbwiki.com</a>. It is designed to help instructors learn to employ digital writing tools such as blogs/vlogs, wikis, digital mapping, digital poetry/storytelling, digital slideshows and scrapbooks, online discussions/role-play, podcasting, VoiceThread audio commentary, PowerPoint</td>
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presentations, and e-portfolios to teach writing. And, it also includes learning to use features of involved in organizing and linking digital writing: RSS feeds, tagging, comments, hotlinks, image/video embedding, and text promotion. Students will acquire the use of these tools in the course through creating or contributing to forum discussions on the class Ning, creating blog/vlog posts, digital maps, Flickr slideshows, a podcast, and digital storytelling. They will also be providing comments to each other’s blog posts and developing teaching activities that involve the use of digital writing tools. And, they will reflect on their work in the course based on criteria associated with effective use of digital writing tools to improve writing quality.

**Style:** 20% Lecture, 10% Film/Video, 20% Discussion, 10% Small Group Activities, 10% Student Presentation, 10% Demonstration, 10% Guest Speakers, 10% Web Based.

**Grading:** 40% reports/papers, 60% journal. Journal will consist of blog posts

**Cl 5496 Directed Experiences in Teaching English**

S-N only, 8 credit(s); prereq MED/initial licensure students in English ed only;

Instructor: STAFF

Description: Student teaching/clinical experience for English post-baccalaureate students only.

**Cl 5501 Teaching Science and Health in the Elementary School**

A-F only, 2 credit(s); prereq Elem ed initial licensure only;

Instructor: Upadhyay,Bhaskar

Description: Methods and materials for teaching science and health at the elementary school level.

**Cl 5504 Elementary School Science: Materials and Resources**

3 credit(s); prereq Elem tchg exper or instr consent;

Instructor: Johnson,Roger T

Description: Student may contact the instructor or department for information.

**Cl 5531 Teaching Middle School Science**

A-F only, 3 credit(s); prereq Initial licensure student in science ed;

Instructor: Billington,Barbara Lynne

Description: Student may contact the instructor or department for information.

**Cl 5531 Teaching Middle School Science**

A-F only, 3 credit(s); prereq Initial licensure student in science ed;

Instructor: McClelland,Jerry Hammond

Description: Student may contact the instructor or department for information.

**Cl 5537 Principles of Environmental Education**

A-F only, 3 credit(s); prereq Undergrad in NRES or M.Ed. or grad student in education or instr consent;

Instructor: Finley,Fred N

Description: Critical review of Environmental Education, its history, theories, curricula, teaching methods, and assessment practices. Development of an exemplary unit plan for teaching environmental studies.

**Cl 5539 Improving Secondary Science Instruction: Surviving the First Two Years**

A-F only, 3 credit(s); prereq MEd science education student, in first three years of teaching;

Instructor: Hoelscher,Mary Helen

Description: Student may contact the instructor or department for information.

**Cl 5540 Special Topics: Science Education**

3 credit(s), max credits 12, 12 completions allowed;

Instructor: Finley,Fred N

Description: Student may contact the instructor or department for information.

**Cl 5540 Special Topics: Science Education**

Instructor: Tedick PhD,Diane J

3 credit(s), max credits 12, 12 completions allowed;

Instructor: Roehrig,Gillian Heather

Description: Student may contact the instructor or department for information.

**Cl 5596 Clinical Experience in Middle School Science**

A-F only, 4 credit(s); prereq initial licensure in science ed;

Instructor: Hoelscher,Mary Helen

Description: Student may contact the instructor or department for information.

**Cl 5631 Second Language Curriculum Development and Assessment**

A-F only, 3 credit(s); prereq SLC initial licensure only;

Instructor: Ranney,Susan Elaine

Description: Developing skills for selecting, organizing, providing, and assessing effective second language learning opportunities through study, practice, and reflection.

**Cl 5632 Communication and Comprehension in Second Language Classrooms**

A-F only, 3 credit(s); prereq SLC initial licensure only;

Instructor: King PhD,Kendall Amy

Description: Comprehension and communication processes in a second language focus on listening, speaking, reading and writing; techniques for initial to advanced literacy instruction; fundamental principles of effective second language instruction; the relationship of culture to proficiency in the four modalities; traditional and alternative approaches to assessing language proficiency; use of technology to enhance instruction.

**Cl 5644 Working with Linguistically and Culturally Diverse Students in the Mainstream Classroom**

1 credit(s);

Instructor: Stolpестad,Amy O'Connor

Description: Benefits and challenges of working with linguistically and culturally diverse students; instructional practices and strategies; issues related to language learning, cultural considerations, and integration of culturally and linguistically diverse learners in the classroom.

**Cl 5646 Understanding and Teaching English Grammar**

3 credit(s); prereq Ling 5001 or instr consent;

Instructor: Rambow,Adam C

Description: English syntax from pedagogical perspective. Grammatical structures that challenge ESL learners. Analyzing learner errors. Issues/activities related to teaching grammar in ESL contexts.

**Cl 5651 Foundations of Second Languages and Cultures Education**

A-F only, 3 credit(s);

Instructor: Ranney,Susan Elaine

Description: Student may contact the instructor or department for information.

**Cl 5656 Reading and Writing in a Second Language**

A-F only, 3 credit(s);

Instructor: Bigelow,Martha

Description: The course provides a background to inquiry in the areas of second/foreign language reading and writing. Participants are given a wide range of options to choose from to meet their own professional and intellectual interests. This project encourages lifelong learning by starting students on the path to continuing to deepen their understanding of the second/foreign language literacy and of current pedagogical approaches to the teaching of literacy across many second language classroom settings. This course explicitly addresses, through critical pedagogical approaches, how culture and community-specific literacies can find their way into language curricula in order to facilitate both first language maintenance and second language acquisition.

**Cl 5658 Second Language Testing and Assessment**

A-F only, 3 credit(s);

Instructor: Tedick PhD,Diane J
Description: Student may contact the instructor or department for information.  

CI 5660 Special Topics in the Teaching of Second Languages and Cultures  
3 credit(s), max credits 12, 12 completions allowed;  
Instructor: Tedick PhD, Diane J  
Description: Student may contact the instructor or department for information.  

CI 5660 Special Topics in the Teaching of Second Languages and Cultures  
1-4 credit(s), max credits 12, 12 completions allowed;  
Instructor: Walker, Constance L  
Description: Student may contact the instructor or department for information.  

CI 5693 Directed Study in Second Languages and Cultures  
1-4 credit(s), max credits 4, 1 completion allowed; prereq  
Instr consent;  
Instructor: STAFF  
Description: Individual or group work on curricular, instructional, or assessment problems.  

CI 5696 Practicum: Teaching World Languages and Cultures in Elementary Schools  
2-6 credit(s), max credits 6, 1 completion allowed; prereq  
5619, adviser approval; credits cannot be counted on a graduate degree program for endorsement candidates;  
Instructor: STAFF  
Description: Teaching and learning experiences in second languages and cultures at the elementary school level. Requires students to work in a public school setting.  

CI 5697 Practicum: ESL in the Elementary School  
2-6 credit(s), max credits 6, 1 completion allowed; prereq  
Adviser approval;  
Instructor: STAFF  
Description: Teaching and learning experiences in an English as a second language setting at the elementary school level. Requires students to work in a public school setting.  

CI 5698 Student Teaching in Second Languages and Cultures  
2-6 credit(s), max credits 14, 5 completions allowed; prereq  
Adviser approval; credits cannot be counted on a graduate degree program;  
Instructor: STAFF  
Description: Student teaching in Second Languages and Cultures at the secondary level for teachers already licensed in another field. Requires students to work in a public school setting.  

CI 5701 Teaching Social Studies in the Elementary School  
A-F only, 2 credit(s); prereq Elementary ed or early childhood ed initial licensure;  
Instructor: Engbreth, Kathryn Ellerhoff  
Description: Student may contact the instructor or department for information.  

CI 5705 Middle School Social Studies Methods  
A-F only, 2 credit(s); prereq Elem ed licensure student;  
Instructor: Simmons, Annette Marie-Miller  
Description: Introduction to the unique needs of middle school students in the social studies classroom. Social studies content and pedagogical skills. Adolescent development/psychology. Field placement in a middle school social studies classroom.  

CI 5731 Social Studies for the In-Service Elementary and Middle School Teacher  
A-F only, 3 credit(s);  
Instructor: Avery, Patricia Grant  
Description: Student may contact the instructor or department for information.  

CI 5742 Advanced Methods of Teaching the Social Studies  
A-F only, 3 credit(s); prereq Secondary social studies initial licensure student;  
Instructor: Levy, Sara Ann  
Description: Focus on developing a repertoire of instructional methods that support authentic pedagogy and assessment. Enhancing reading comprehension and writing skills in the social studies.  

CI 5743 The Social Sciences and the Social Studies  
A-F only, 3 credit(s); prereq Secondary social studies initial licensure student;  
Instructor: Beaton, Jehanne Helena  
Description: Student may contact the instructor or department for information.  

CI 5761 Social Studies Education for the Inservice Middle/Secondary Teacher  
3 credit(s);  
Instructor: Avery, Patricia Grant  
Description: Student may contact the instructor or department for information.  

CI 5782 Clinical Experiences in Teaching Social Studies  
S-N only, 1-8 credit(s), max credits 7, 1 completion allowed; prereq MEd/initial licensure student;  
Instructor: Harrington, Judith M.  
Description: Student may contact the instructor or department for information.  

CI 5821 Teaching Mathematics in the Elementary School  
A-F only, 2 credit(s); prereq Elementary ed or early childhood initial licensure;  
Instructor: STAFF  
Description: Principles of learning pertinent to the modern program of mathematics in elementary grades. Objectives, content, philosophy, instructional materials and methods of instruction and evaluation.  

CI 5900 Special Topics in Family, Youth, and Community  
1 credit(s), max credits 20, 20 completions allowed;  
Instructor: Walker, Susan K  
Description: Student may contact the instructor or department for information.  

CI 5902 Family Education Perspectives  
A-F only, 3 credit(s);  
Instructor: Englund, Lynn A.  
Description: Students in family education (and those who will have professional roles working with families) will examine and appreciate the multiple avenues through which family education has occurred across human history and cultures. Students seek out alternative perspectives of family education by reading historic in articles and documents to deduce underlying motivations and interests, cultural and historical contexts, philosophical orientations, assumptions, and values associated with family education. Students will also study the nature of practical problems encountered by families in their everyday functioning as families. The will consider what family education's perspective should be regarding the nature of these problems and discuss the implications and consequences related to the research and application of family education for programs, educators, and families, and society. Students will formulate and/or clarify their personal perspective of family education. Only the online Web-based section of the course will be offered. Microphone for audio recording is required. No camera/video capability is required.  
Style: 100% Web Based.  
Grading: 10% reports/papers, 16% reflection paper, 70% class participation, 4% other evaluation. All class participation is conducted online using web and audio (microphone required). No video camera capability is required.  

CI 5922 Family and Consumer Sciences Curriculum in Grades 5-12  
A-F only, 3 credit(s); prereq ILP student credit will not be granted if credit received for: FE 5302;
CI 5925 Family and Consumer Sciences Student Teaching II
A-F only, 2 credit(s); prereq credit 5924;
Instructor: Lundell,Amy Jo
Description: Part-time supervised teaching experience in family and consumer sciences programs, guided by on-campus seminars that emphasize reflective teaching practice and student learning in the context of middle and high schools.

CI 5932 Introduction to Parent Education
A-F only, 1 credit(s);
Instructor: STAFF
Description: Overview of the philosophy, history, and models of parent education; introduction to ethical and critically reflective professional practice.

CI 5937 Parent-Child Interaction
A-F only, 3 credit(s); prereq credit will not be granted if credit received for: FE 5712;
Instructor: Cooke,Betty
Description: Students will analyze and critique parent-child interaction theory and research, consider implications for parent-child relationships and parents' and children's development, and apply this course material to professional work with families. Course Objectives Students will: Analyze parent-child interaction theories and research for their significance in understanding parent-child relationships and parents' and children's development. Critique parent-child interaction theories and research for their relevance to, and implications for, working with families. Integrate parent-child interaction theories and research into professional practice. Deepen self-awareness through applying parent-child interaction theories to one's own situation. Course Overview This course combines research and practice to provide a comprehensive view of the skills and strategies parent educators will use as teachers. Students will continue to reflect and grow in their understanding of the professional role and competencies of a parent educator. Please view the short video introduction to this course at the Course URL listed below.

CI 5937 Parent-Child Interaction
A-F only, 3 credit(s); prereq credit will not be granted if credit received for: FE 5712;
Instructor: Cline,Heather Marie
Description: Students will analyze and critique parent-child interaction theory and research, consider implications for parent-child relationships and parents' and children's development, and apply this course material to professional work with families. Course Objectives Students will: Analyze parent-child interaction theories and research for their significance in understanding parent-child relationships and parents' and children's development. Critique parent-child interaction theories and research for their relevance to, and implications for, working with families. Deepen self-awareness through applying parent-child interaction theories to one's own situation. Course Overview This course combines research and practice to provide a comprehensive view of the skills and strategies parent educators will use as teachers. Students will continue to reflect and grow in their understanding of the professional role and competencies of a parent educator. Please view the short video introduction to this course at the Course URL listed below.

CI 5943 Parent Learning and Development: Implications for Parent Education
A-F only, 2 credit(s);
Instructor: Walker,Susan K
Description: Students will examine adult, adolescent, and parent learning and development from the perspective of their relevance for parent education. Research information and a variety of theoretical perspectives will be presented and critiqued. Personal professional development will be facilitated through challenging assumptions and examining knowledge and competencies required for parent educators. This course meets a requirement for the Teachers of Parent and Family Education Minnesota Board of Teaching license. Course Goals: Students will: ? Analyze theories of adolescent, adult, and parent learning and development and their implications for parent education ? Explore the nature of attachment and reciprocity in parent-child relationships ? Examine how the context of parenting impacts parent-child relationships and parent development and learning ? Develop insight into the parenting experience and development of parents through reflection on the lives of parents and theories of learning and development ? Gain insight into professional development and parent education through critical reflection on one's assumptions about parent learning and development
NOTE: This is an 8 week, ONLINE course.
Style: 60% Discussion. Grading: 62% written homework, 38% class participation.

CI 5944 Parent Education Curriculum
A-F only, 2 credit(s); prereq 5943 or instr consent ;
Instructor: Walker,Susan K
Description: How parent learning/development, child development, and family systems theories influence curriculum approaches/materials in parent education. Student develop construct, critique, and select curriculum.

CI 5952 Everyday Lives of Youth
A-F only, 3 credit(s); prereq credit will not be granted if credit received for: WCFE 5411;
Instructor: Baizerman,Michael Leon
Description: Exploration of how youth as idea and as lived-reality are understood in scholarship, public discourse, and professional practice as a first step in building a critical practice of work with and/or on behalf of youth. This class is far less about the science of adolescent development than it is about the lived-experiences of being a kid and doing youth, the lived-body, lived-time, lived-space, lived-relationships, and lived-self of youthhood. We together explore youth as representation, as population, and as individual, thus experiencing the everyday lives of youth in-the-world.
Style: 80% Discussion, 20% Small Group Activities. Grading: 80% reports/papers, 20% class participation. Weekly class attendance is required.

CI 5956 Organizational Approaches to Youth Development
A-F only, 2 credit(s); prereq credit will not be granted if credit received for: WCFE 5413;
Instructor: Skuzu PhD,Jennifer Ann
Description: Student may contact the instructor or department for information.

CI 5960 Seminar in Youth Development Leadership
S-N only, 1-4 credit(s), max credits 4, 4 completions allowed; prereq YDL student or instr consent credit will not be granted if credit received for: WCFE 5451;
Instructor: Stein,Jerome A
Description: Student may contact the instructor or department for information.

CI 5962 Leadership Field Experience: Youth Development
S-N only, 4 credit(s); prereq YDL student;
Instructor: Stein,Jerome A
Description: Student may contact the instructor or department for information.

CI 5971 Education in the Community
3 credit(s);
**Schedule.**

Course Guide at [http://onestop.umn.edu](http://onestop.umn.edu). **IMPORTANT:** Before you attend the first class, verify the room location in the online Class Schedule. This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online University of Minnesota - Course Guide for Twin Cities Campus Fall 2010.

CI 8131 **Curriculum and Instruction Core: Critical Examination of Curriculum in Context**
- A-F only, 3 credit(s); prereq CI PhD or MA student or instr consent;
- Instructor: Lenesmire, Timothy J.
- Description: Student may contact the instructor or department for information.

CI 8132 **Curriculum and Instruction Core: Teaching Theory and Research**
- A-F only, 3 credit(s); prereq CI PhD or MA student or instr consent;
- Instructor: Scharber, Cassie Marie
- Description: Student may contact the instructor or department for information.

CI 8133 **Research Methods in Curriculum and Instruction**
- A-F only, 3 credit(s); prereq CI PhD or MA student or instr consent;
- Instructor: Bequette, James W
- Description: Student may contact the instructor or department for information.

CI 8148 **Conducting Qualitative Studies in Educational Contexts**
- 3 credit(s); prereq CI MA or PhD student or instr consent;
- Instructor: Ngo, Bic
- Description: Student may contact the instructor or department for information.

CI 8150 **Research Topics Curr & Instruct**
- 3 credit(s); max credits 12, 12 completions allowed; prereq [M.A. or Ed.D or Ph.D.] student or instr consent;
- Instructor: Swiss, Thom
- Description: Special topics, current research trends in curriculum/instruction. Research review, subject integration, curriculum contexts, development, implementation, data collection, analysis, evaluation.

CI 8155 **Immigrant Families and U.S. Schools**
- A-F only, 3 credit(s);
- Instructor: Ngo, Bic
- Description: Student may contact the instructor or department for information.

CI 8159 **Culture and Teaching Colloquium**
- A-F only, 3 credit(s), max credits 6;
- Instructor: Sato, Mistilina
- Description: Student may contact the instructor or department for information.

CI 8161 **Research Experience I: Study Design and Planning**
- OPT No Aud, 3 credit(s); prereq [8133, 6-12 cr of research methodology, CI PhD student] or instr consent;
- Instructor: Bigelow, Martha
- Description: Student may contact the instructor or department for information.

CI 8196 **Practicum in Teaching in Colleges of Education**

**Dakota 19 Scott Hall**

**DAKOTA 1121** Beginning Dakota I
- 5 credit(s); Credit will not be granted if credit has been received for: DAKO 4121;
- Instructor: Bendickson, Wayne Joseph
- Description: Student may contact the instructor or department for information.

**DAKOTA 3123** Intermediate Dakota I
- 5 credit(s); prereq 1122; Credit will not be granted if credit has been received for: DAKO 4123;
- Instructor: Bendickson, Wayne Joseph
- Description: Student may contact the instructor or department for information.

**DAKOTA 3125** Introduction to Dakota Linguistics

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at [http://onestop.umn.edu](http://onestop.umn.edu). **IMPORTANT:** Before you attend the first class, verify the room location in the online Class Schedule.
3 credit(s); prereq 3124;
Instructor: McKay, Neil Troy
Description: Student may contact the instructor or department for information.

DAKOTA 4121 Beginning Dakota I
3 credit(s); prereq [1122, 1004] in another language or passing score on LPE or grad student; Credit will not be granted if credit has been received for: DAKO 1121;
Instructor: Bendickson, Wayne Joseph
Description: Student may contact the instructor or department for information.

Dakota 4123 Intermediate Dakota I
3 credit(s); prereq 1121, 3123, 5126; Credit will not be granted if credit has been received for: DAKO 3123;
Instructor: Bendickson, Wayne Joseph
Description: Student may contact the instructor or department for information.

Dakota 5126 Advanced Dakota Language I
A-F only, 3 credit(s), max credits 12, 4 completions allowed;
Instructor: McKay, Neil Troy
Description: Student may contact the instructor or department for information.

Dance

Barbara Barker Center for Dance

DNCE 1001 Modern Dance Technique 1
1 credit(s);
Instructor: STAFF
Description: This course is a basic introduction to modern dance technique. Emphasis will be placed on successful performance of the fundamental elements that comprise modern dance technique. This will include class warm-up, center floor sequences and combinations, and movement patterns that move across and through space. This course will also include basic elements of dance improvisation as well as fundamental anatomical understanding. Classes will be based on the exploration of the elements of time, space and energy while emphasizing alignment, flexibility, strength, clarity and efficiency of movement.
Style: Studio

DNCE 1010 Modern Dance Technique 3
2 credit(s), max credits 4; prereq dept consent , audition;
Instructor: STAFF
Description: This course is the third level of eight levels of modern dance technique offered in the Dance Program. Classwork is based on practical application of the principles of classical ballet technique, including body alignment and placement, strength, flexibility, coordination and musicality. By the end of the semester students should be able to understand the principles of classical ballet technique and be able to execute it with ease and confidence.

DNCE 1040 Modern Dance Partnering Technique
A-F only, 1 credit(s), max credits 2; prereq Dance major or instr consent ;
Instructor: Flink, Carl Lindsay
Description: An exploration and examination of the technical demands, approaches and skills needed for partnering in modern dance. This course is open to dance program majors unless a non-major receives instructor permission to register for it.

DNCE 1101 Ballet Technique 1
1 credit(s);
Instructor: STAFF
Description: This class is the first of the two-semester sequence of fundamental ballet technique. Classwork is based on the practical application of the principles of classical ballet technique, including body alignment and placement, strength, flexibility, coordination and musicality. By the end of the semester students should be able to understand the principles of classical ballet technique and be able to execute it with ease and confidence.

DNCE 1101 Ballet Technique 1
1 credit(s);
Instructor: Wallum, Tina Anderson
Description: This class is the first of the two-semester sequence of fundamental ballet technique. Classwork is based on the practical application of the principles of classical ballet technique, including body alignment and placement, strength, flexibility, coordination and musicality. By the end of the semester students should be able to understand the principles of classical ballet technique and be able to execute it with ease and confidence.
Style: Studio

DNCE 1110 Ballet Technique 3
2 credit(s), max credits 4; prereq dept consent , audition;
Instructor: STAFF
Description: This class is the first of the two-semester sequence of beginning ballet technique - level three in an eight-semester sequence of Ballet Technique classes offered in the Dance Program. Classwork is based on the practical application of the principles of classical ballet technique, including body alignment and placement, strength, flexibility, coordination and musicality. By the end of the semester students should be able to execute beginning level ballet vocabulary with a physical understanding of these elements.

DNCE 1201 Jazz Technique 1
1 credit(s);
Instructor: STAFF
Description: This is the first of an eight-semester sequence of jazz dance technique/style. Class work will focus on fundamental jazz vocabulary and movement. Emphasis will be on basic understanding of proper body placement, clear articulation and basic mechanics of jazz movement, and basic rhythm patterns. Improvisation will be introduced as a tool to gain a better understanding of one's movement potential.
Style: studio

DNCE 1201 Jazz Technique 1
1 credit(s);
Instructor: Grotting, Karla Kaye
Description: Student may contact the instructor or department for information.

DNCE 1210 Jazz Technique 3
1 credit(s), max credits 2; prereq dept consent ; , audition;
Instructor: STAFF
Description: This is the third of an eight-semester sequence of jazz dance technique/style. This class will introduce vocabulary and develop technical skills using a variety of jazz dance styles while increasing flexibility, groundedness and strength. This will include more complex weight changes, rhythm patterns, changes of direction and balances. Dancers will increase their understanding of musicality, dynamics, style and improvisation and explore a basic understanding of the history of jazz music style.

DNCE 1301 Tap Technique 1
1 credit(s);
Instructor: STAFF
Description: This studio class will focus on the fundamentals of tap dance with an emphasis on musicality and rhythm. Students will learn basic footwork and combinations and beginning time steps. Students will also be introduced to exercises for tap dance improvisation.
Style: Studio

DNCE 1313 African Based Movement
1 credit(s);
Instructor: STAFF
Description: This course will focus on varied movement of the
Dance Improvisation
1 credit(s);
Instructor: STAFF
Description: This course will cover the traditional swing dances popular in the United States during the 1930s and through the early 1960s. Each week new movements and figures will be taught and previous dances will be reviewed. To increase the learning process, students will be expected to change partners throughout class.

DNCE 1327 Argentine Tango
OPT No Aud, 1 credit(s);
Instructor: Taccetti, Maria Florencia
Description: Student may contact the instructor or department for information.

DNCE 1331 Yoga
1 credit(s);
Instructor: STAFF
Description: This course will give a basic introduction to the theory and practice of Yoga. The course will introduce the student to standing postures, forward bends and twists, balancing and seated postures, inversions, back bends, and guided relaxation and meditation. Course objectives include proper alignment, proper weight placement, body awareness, relaxation, and breathing techniques. Assignments will include a midterm paper and a movement demonstration final.

DNCE 1343 Hip Hop Movement
OPT No Aud, 1 credit(s);
Instructor: Sarge, Kenna Jean
Description: Student may contact the instructor or department for information.

DNCE 1351 African Diasporic Movement 1
OPT No Aud, 1 credit(s);
Instructor: Brown, Patricia
Description: Student may contact the instructor or department for information.

DNCE 1353 African Diasporic Movement 3
OPT No Aud, 1 credit(s); prereq 1352 or audition or instr consent;
Instructor: Silva Dos Santos, Marciano
Description: Student may contact the instructor or department for information.

DNCE 1401 Introduction to Dance
OPT No Aud, 3 credit(s); Credit will not be granted if credit has been received for: CHIC 1401; Meets CLE req of Arts/Humanities;
Instructor: Bergeron, Maggie Marie
Description: Student may contact the instructor or department for information.

DNCE 1601 Dance Improvisation
A-F only, 1 credit(s); prereq Concurrent registration in a modern dance technique course, dept consent;
Instructor: STAFF
Description: This course is the first part of a six-semester sequence in Dance Composition. Classwork consists of exploration of individual ways of moving via the improvisational process. Students will link this exploration to the fundamental elements of dance: time, space, and energy. Students will also examine metered time, musical phrasing, movement speed, shape, and quality. Focus will be placed on using various improvisational and choreographic structures to express a movement idea. Course objectives include exploring the creative process, discovering individual movement vocabulary, and experimenting with structural devices in dance.

DNCE 1626 Music for Dance
3 credit(s); prereq dept consent; Meets CLE req of Arts/Humanities;
Instructor: STAFF
Description: This course will examine the basics of music with continual reference to music/dance interactions. While striving to hear more and more when listening to music, students will also learn copious terminology to describe what they hear. Classwork will also include honing basic rhythm skills, working with notation, playing percussion and discussion of the ways music and dance can combine.

DNCE 3010 Modern Dance Technique 5
2 credit(s), max credits 4; prereq dept consent, audition;
Instructor: STAFF
Description: This course is the fifth level of eight levels of modern dance technique offered in the Dance Program. The purpose of the technique class is to allow the intermediate modern dance student to explore and discover him/herself as an articulate and expressive mover. Classwork continues to involve space, time and energy with specific emphasis on alignment, power, momentum, articulation, clarity of intent, musicality, strength, stretch, and stamina. Class consists of in-place warm-ups, technical exercises and dance phrases applying the technique addressed. Successful completion of previous level or departmental approval by audition required for registration
Style: Studio

DNCE 3110 Ballet Technique 5
2 credit(s), max credits 4; prereq dept consent, audition;
Instructor: STAFF
Description: This course is the fifth level of an eight-semester sequence in classical ballet. This course offers the intermediate ballet student principles of ballet technique. Classwork will involve strong emphasis on proper alignment of the body, dynamic timings, and a command of ballet terminology. The class format will begin with barre, followed by a period of stretching. Turning and jumping will be re-introduced at the barre and subsequently transferred to the center. Centerwork will include all aspects of ballet technique including port de bras, adagio, turns, petite allegro and grade allegro. As the semester progresses, the combinations will become more complex. A constant correlation between barre and centerwork will be explored.

DNCE 3210 Jazz Technique 5
1 credit(s), max credits 2; prereq dept consent, audition;
Instructor: STAFF
Description: This is the fifth of an eight-semester sequence of jazz dance technique/style. Classwork will concentrate on the development of a clear understanding of the eclectic range of jazz dance and its various styles. Movement vocabulary will cover styles from the American vernacular to more contemporary styles of today. In addition to the established techniques from the previous levels, focus will be placed on off-center movements, floor work and a variety of turns and jumps. Emphasis will be on individual style, working on clarity of movement, and improvisation. Successful completion of previous level or departmental approval by audition required for registration
Style: Studio

DNCE 3301 Tap Technique 3
1 credit(s); prereq 1302 or instr consent;
Instructor: STAFF
Description: This course is the third in a six-semester sequence of tap dance technique. This studio class will focus on intermediate skills of tap dance including pick-ups, pull-backs and wings. There will be a continuing emphasis on musicality and rhythm. The class will practice intermediate footwork and combinations, time steps, tap dance routines, and improvisation exercises.

DNCE 3311 Contemporary Indian Dance 1
OPT No Aud, 1 credit(s); prereq instr consent;
DNCE 3334 Introduction to Dance/Movement Therapy  
2 credit(s); prereq dept consent;  
Instructor: Nordstrom-Loeb, Barbara E  
Description: This course is a basic introduction to the field of Dance/Movement Therapy. It will include 1) historic and theoretical perspectives on the use of movement and dance in relationship to psychology and healing; 2) an introduction to some of the major Dance/Movement Therapy pioneers and techniques; and 3) a brief introduction to ways that Dance/Movement Therapy is used with various populations and in a variety of settings. The class is both experiential and didactic. Objectives: The student will be able to: describe the field of Dance/Movement Therapy in relationship to related disciplines such as Dance, Psychology, Creative Arts Therapies, Somatics and Complementary and Alternative Therapies; identify and discuss the basic premises, theory and approaches of Dance/Movement Therapy; be familiar with selected Dance/Movement Therapy pioneers and their contribution to the field of Dance/Movement Therapy; understand the uses of Dance/Movement Therapy with selected settings and populations; be familiar with training process and requirements for Dance Movement Therapy certification; apply Dance/Movement Therapy approaches to their own experience.

DNCE 3337 Body Mind Centering  
2 credit(s);  
Instructor: STAFF  
Description: This class provides an overview of Body-Mind Centering, a new approach to movement, mind and body developed over the past thirty years by Bonnie Bainbridge Cohen, O.T. Classwork includes improvisational movement explorations, hands-on re-patterning work and discussion designed to give direct experience of the way mind (desire, attention, and intention) is expressed through the various body systems. These systems are the skeletal, organ, muscle, fluid, nervous, and endocrine. In addition, students will study developmental movement, the baby movements that underlie our more complex adult movement. Imagery, touch, and anatomical information will be used as tools to help students access a range of inner sensations and movement experiences. Emphasis will be on the acknowledgement of each individual's unique experience of the body, as well as on the experiences we share as human beings. This class is experiential and includes movement, touch, lecture and class discussion. Students can expect to spend two to three hours per week in outside reading and keeping a journal. There is one quiz and one take home exam.

DNCE 3401W Dance History 1  
3 credit(s); meets CLE req of Global Perspectives; meets CLE req of Writing Intensive;  
Instructor: STAFF  
Description: Dance History 1 & 2 are basic survey courses that study the development of dance with a primary focus on the West. Beginning with examining notions of 'histrionography' and what it means to bring the 'dancing body' within the norms generated by textually and linguistically based disciplines such as history, Dance History 1 goes on to study the different ways that dance seems to have evolved in ancient civilizations such as Egypt, India, and Greece. The first semester of the course then develops our understanding of the nature of movement improvisation and its relationship to choreographic structure. An understanding and appreciation of the creative process and its application to one's self and other art forms will also be discussed and implemented throughout assignments in movement and writing.

DNCE 3487W Dance and Citizenship: Land, Migration, and Diaspora  
3 credit(s); Meets CLE req of Writing Intensive;  
Instructor: STAFF  
Description: This course is a study of dance and performance as practiced and transformed by Native Americans and minority groups in the United States, mapped as "ethnic body." Emphasis is on migration as a global phenomenon, particularly pertaining to land disputes, labor distribution, political asylum and dislocation. The course also strives to understand the nature of so-called "ethnic practices" in the context of cultural exchange and multiculturalism within United States. The course addresses how the socio-historical perspective of the dance, as practiced, developed and performed in the United States context, exercise the understanding of political identity and citizenship.

DNCE 3500 Topics in Dance  
1-3 credit(s), max credits 10, 10 completions allowed;  
Instructor: STAFF  
Description: In this course, participants will learn and research effective ways to improve their nutrition and remain injury-free throughout their dance careers and beyond. Nutrition principles will be discussed in-depth and applied to the unique challenges, needs, and interests of dancers. General anatomy of movement will be examined in order to develop constructive ways to prevent and manage injuries. Another course focus will be on stress reduction techniques designed to provide participants with tools to meet the grueling demands of a dance career.

DNCE 3602 Dance Composition 2  
3 credit(s); prereq 3601, dept consent; concurrent reg in a modern dance technique course;  
Instructor: STAFF  
Description: This course is the third part of a six-semester sequence in Dance Composition. Classwork consists of learning tools to create dances that express a personal vision, have developed integrity of form and structure and show a pronounced awareness of one's own individual movement vocabulary. Students will continue to broaden their kinesthetic understanding of the nature of movement improvisation and its relationship to choreographic structure. An understanding and appreciation of the creative process and its application to one's self and other art forms will also be discussed and implemented through assignments in movement and writing.

DNCE 3621 Dance Production I  
A-F only, 2 credit(s); prereq Dance major, dept consent;  
Instructor: STAFF  
Description: In this course students will study the technical and administrative aspects of dance production. This includes lighting, costumes, sound, marketing, stage management, fundraising and publicity. Emphasis will be placed on learning practical project management and personal management skills.

DNCE 4443 Theorizing Dancing Bodies  
3 credit(s); prereq 3402W or instr consent; Credit will not be granted if credit has been received for: DNCE 5443;  
Instructor: STAFF  
Description: Theorizing Dancing Bodies is a discourse-based course with the intention of developing a theoretical base for the newly emerging discipline of Dance Studies and within that, a strong focus on "reading" dance. Working with the premise that Dance Studies, like Performance Studies, is fundamentally different than most other artistic disciplines, in that it has dancing bodies at its center, this course works through various aesthetic and philosophical perspectives and the lens of intersecting race, gender, class, and sexuality, to arrive at a complex consciousness about the impact dancing images can have on the socio-cultural scene. Grading: 30% reports/papers, 35% in-class presentation, 35% class participation.  
Exam Format: Essay

DNCE 4602 Dance Composition 4  
3 credit(s); prereq 4601, Concurrent registration is required (or allowed) in modern dance technique course, dept consent;  
Instructor: STAFF  
Description: This course is the fifth of a six-semester sequence in Dance Composition. Class work will consist of exploration and structuring of dances for groups. Course Objectives include: developing and understanding and appreciation for the craft of group choreography, exploring the creative process, discovering

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DNCE 4901 Senior Seminar
S-N only, 2 credit(s); prereq Sr, [Dnce or Th major]; Credit will not be granted if credit has been received for: TH 4901;
Instructor: STAFF
Description: Development of senior project, alone or in groups, under guidance of faculty members.

DNCE 5010 Modern Dance Technique 7
2 credit(s), max credits 4; prereq dept consent , audition;
Instructor: STAFF
Description: This course is the seventh level of eight levels in modern dance technique. This course will offer a variety of modern dance techniques and styles from various instructors and guest artists. This course is intended for the advanced dance major.

DNCE 5110 Ballet Technique 7
1 credit(s), max credits 2; prereq dept consent , audition;
Instructor: STAFF
Description: This course is the seventh in an eight-semester sequence of ballet technique. This advanced level ballet class will emphasize and further develop the following skills: clarity of arms and head positions, a strong stance, stability and balance, coordination of the joining of steps, use of feet in jumps, the ability to reverse and remember movement combinations.

DNCE 5334 Introduction to Dance/Movement Therapy
2 credit(s); prereq dept consent ;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 5443 Theorizing Dancing Bodies
3 credit(s); prereq instr consent ; Credit will not be granted if credit has been received for: DNCE 4443;
Instructor: Chatterjea,Ananya
Description: Theorizing Dancing Bodies is a discourse-based course with the intention of developing a theoretical base for the newly emerging discipline of Dance Studies and within that, a strong focus on ‘reading’ dance. Working with the premise that Dance Studies, like Performance Studies, is fundamentally different than most other artistic disciplines, in that it has dancing bodies at its center, this course works through various aesthetic and philosophical perspectives and the lens of intersecting race, gender, class, and sexuality, to arrive at a complex consciousness about the impact dancing images can have on the socio-cultural scene.

DNCE 5500 Topics in Dance
1-3 credit(s), max credits 10, 10 completions allowed;
Instructor: STAFF
Description: See instructor descriptions per section.

DNCE 5700 Performance
1 credit(s), max credits 4, 4 completions allowed; prereq concurrent enrollment in technique course, dept consent;
Instructor: STAFF
Description: This course is for students in University Dance Theatre.

DNCE 5858 Teaching Dance
4 credit(s); prereq 1020, dept consent , instr consent ;
Instructor: STAFF
Description: This course is an introduction to pedagogy and dance teaching methods. Students will discuss various theories of teaching, the responsibilities when teaching and the craft or art of teaching dance. The class will examine potential students by special interest groups. Time will be spent on small teaching projects dealing with one specific idea, as well as developing individual lesson plans and a series of classes. The students in the class will teach each other as well as develop classes for outside groups. The class will discuss and implement the fulfillment of the goal to coordinate the creative and the technical development of our potential students.

DNCE 5993 Directed Studies
1-4 credit(s), max credits 10, 10 completions allowed; prereq instr consent , dept consent , college consent ;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 5993 Directed Studies
1-4 credit(s), max credits 10, 10 completions allowed; prereq instr consent , dept consent , college consent ;
Instructor: Chatterjea,Ananya
Description: Student may contact the instructor or department for information.

**Dental Hygiene**

9-406 Malcolm Moos Health Sciences Tower

DH 2111 Dental Anatomy
A-F only, 2 credit(s); prereq DH student;
Instructor: Anderson,Jeanne Marie
Description: All deciduous and permanent teeth, including tooth form, function, and relationship to oral health; calcification, eruption, and exfoliation patterns; ideal static occlusion, dental terminology, and tooth annotation systems. Lab includes identification and annotation of teeth and restoration, in wax, of portions of a typodont tooth. Includes content necessary for the practice of dental hygiene. Teaching methods include lecture, large and small group discussion, and laboratory assignments in drawing, carving, and annotating teeth. Textbooks: Woelfel and Scheid, “Dental Anatomy, Its Relevance to Dentistry.” Williams and Wilkens Publisher; Dental Anatomy Study Guide. Course only open to students enrolled in the Program in Dental Hygiene.
Style: 40% Lecture, 10% Discussion, 50% Laboratory.
Exam Format: multiple choice

DH 2121 The Dental Hygiene Care Process Clinical Application I
A-F only, 5 credit(s); prereq DH student;
Instructor: Osborn,Joy B
Description:

DH 2132 Head and Neck Anatomy
A-F only, 1 credit(s); prereq DH student;
Instructor: Blue,Christine M
Description: Anatomical structures of the head and neck as they relate to the practice of dental hygiene. Teaching methods include lecture, self-directed study using a CD-ROM, discussion. Textbooks: M. Fehrengach and S. Herring: “Illustrated Anatomy of the Head and Neck.” W.B. Saunders. Course only open to students enrolled in the Program in Dental Hygiene.
Style: CD-ROM
Exam Format: Multiple choice

DH 3133 Pharmacology
A-F only, 2 credit(s); prereq DH student;
Instructor: Kinneberg,Barry J
Description: Student may contact the instructor or department for information.

DH 3211 Biomaterials and Principles of Restorative Techniques I
A-F only, 4 credit(s), max credits 8; prereq DH student;
Instructor: Dittmar,Susan Kyle
Description: Student may contact the instructor or department for information.

DH 3224W Dental Hygiene Care Process Clinical Application IV
A-F only, 4 credit(s); prereq Dental hygiene student; Meets CLE req of Writing Intensive;
Instructor: Blue,Christine M

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
DH 3228 Ethics and Jurisprudence for the Dental Hygienist
A-F only, 1 credit(s); prereq Dental hygiene student;
Instructor: Johnson,Kimberly S
Description: Student may contact the instructor or department for information.

DH 4125W Dental Hygiene Care Process Clinical Application V
A-F only, 5 credit(s); prereq DH student; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: This course covers the advanced dental hygiene care process. You will learn to analyze patient preventive/treatment needs through case-based teaching. There is emphasis on cultural diversity, family violence issues, and using technology in patient care.

DH 4300 Elective Academic Service Learning Experiences and Externships
S-N only, 0-13 credit(s), max credits 13, 1 completion allowed; prereq Dental hygiene student;
Instructor: Blue,Christine M
Description: Student may contact the instructor or department for information.

DH 4301 Dental Hygiene: Theory to Practice
A-F only, 4 credit(s); prereq DH student;
Instructor: Newell,Kathleen Jane
Description: Student may contact the instructor or department for information.

DH 4302 Dental Hygiene Care: Special Needs Patients
A-F only, 2 credit(s); prereq DH student;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DH 4303 Information Literacy
S-N only, 3 credit(s);
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DH 5201 Management Internship
S-N only, 5 credit(s); prereq Dental hygiene grad student;
Instructor: Blue,Christine M
Description: Student may contact the instructor or department for information.

DH 5203 Capstone Project
S-N only, 5 credit(s); prereq Dental hygiene grad student;
Instructor: Blue,Christine M
Description: Student may contact the instructor or department for information.

DH 5403 The Discipline of Dental Hygiene
A-F only, 2 credit(s); prereq Dental hygiene grad student;
Instructor: Blue,Christine M
Description: Student may contact the instructor or department for information.

DH 5405 Curriculum and Course Development
A-F only, 2 credit(s), max credits 4; prereq Dental Hygiene grad student;
Instructor: Blue,Christine M
Description: Student may contact the instructor or department for information.

DH 5407 Instructional Strategies for Effective Teaching
A-F only, 2 credit(s); prereq Dental hygiene grad student;
Instructor: Stoltenberg,Jill L
Description: Student may contact the instructor or department for information.

DH 5409 Dental Hygiene Clinic Administration
A-F only, 2 credit(s); prereq Dental hygiene grad student;
Instructor: Blue,Christine M
Description: Student may contact the instructor or department for information.

DH 5411 Administrative Leadership and Professional Development
A-F only, 2 credit(s); prereq Dental hygiene grad student;
Instructor: Blue,Christine M
Description: Student may contact the instructor or department for information.

DH 5415 Dental Hygiene Supervised Didactic Course Student Teaching
A-F only, 1-3 credit(s), max credits 6; prereq Dental hygiene grad student;
Instructor: Blue,Christine M
Description: Student may contact the instructor or department for information.

DH 7777 Thesis
S-N only, 9-10 credit(s), max credits 10, 1 completion allowed; prereq Dental hygiene grad student;
Instructor: Blue,Christine M
Description: Student may contact the instructor or department for information.

Dental Therapy

DT 3130 Preclinical Pediatric Dentistry
A-F only, 2 credit(s);
Instructor: Yesil,Jasmine
Description: Student may contact the instructor or department for information.

DT 3210 Head and Neck Anatomy
A-F only, 1 credit(s); prereq Accepted into undergrad dental therapy program;
Instructor: Blue,Christine M
Description: Student may contact the instructor or department for information.

DT 3330 Clinical Application I
A-F only, 3 credit(s); prereq Undergrad dental therapy program;
Instructor: Osborn,Jo B
Description: Student may contact the instructor or department for information.

DT 3334W Dental Therapy Care Process: Clinical Application II
A-F only, 2 credit(s); prereq 2d yr dental therapist student; Meets CLE req of Writing Intensive;
Instructor: Blue,Christine M
Description: Student may contact the instructor or department for information.

DT 3336 Ethics and Jurisprudence for the Dental Therapist
A-F only, 1 credit(s);
Instructor: Johnson,Kimberly S
Description: Student may contact the instructor or department for information.

DT 3429 Introduction to Psychomotor Skill Development
S-N only, 1 credit(s); prereq Dental therapy student;
Instructor: Phair,Craig B
Description: Student may contact the instructor or department for information.
for information.

DT 3430 Oral Anatomy
A-F only, 2 credit(s); prereq Accepted into dental therapy program;
Instructor: Madden, Michael John
Description: Student may contact the instructor or department for information.

DT 3431 Oral Anatomy Laboratory
A-F only, 2 credit(s); prereq Accepted into dental therapy program;
Instructor: Madden, Michael John
Description: Student may contact the instructor or department for information.

DT 5130 Preclinical Pediatric Dentistry
A-F only, 2 credit(s); prereq DT grad program;
Instructor: Yesil, Jasmine
Description: Student may contact the instructor or department for information.

DT 5210 Head and Neck Anatomy
A-F only, 1 credit(s); prereq Accepted into master's dental therapy program;
Instructor: Blue, Christine M
Description: This course will cover the anatomical structures of the head and neck as they relate to dental therapy treatment.
Style: 85% Lecture, 5% Film/Video, 10% Discussion.

DT 5210 Head and Neck Anatomy
A-F only, 1 credit(s); prereq Accepted into master's dental therapy program;
Instructor: Eliason, Sandra Jean
Description: This course will cover the anatomical structures of the head and neck as they relate to dental therapy treatment.
Style: 85% Lecture, 5% Film/Video, 10% Discussion.

DT 5330 Clinical Application I
A-F only, 3 credit(s); prereq Accepted into master's dental therapy program;
Instructor: Osborn, Joy B
Description: Student may contact the instructor or department for information.

DT 5336 Ethics and Jurisprudence for the Dental Therapist
A-F only, 1 credit(s);
Instructor: Johnson, Kimberly S
Description: Student may contact the instructor or department for information.

DT 5429 Introduction to Psychomotor Skill Development
S-N only, 1 credit(s); prereq In dental therapy program;
Instructor: Phair, Craig B
Description: Student may contact the instructor or department for information.

DT 5430 Oral Anatomy
A-F only, 2 credit(s); prereq Accepted into dental therapy masters program;
Instructor: Madden, Michael John
Description: Student may contact the instructor or department for information.

DT 5431 Oral Anatomy Laboratory
A-F only, 2 credit(s); prereq Accepted into masters in dental therapy program;
Instructor: Madden, Michael John
Description: Student may contact the instructor or department for information.

DT 6231 Hospital Dentistry Clinic Rotation
S-N only, 0 credit(s), max credits 1, 1 completion allowed;
Instructor: Nakagaki, Kevin Neil
Description: Student may contact the instructor or department for information.

DT 6318 Oral and Maxillofacial Pathology Independent Study
S-N only, 1 credit(s), max credits 2;
Instructor: Rohrer, Michael D
Description: Student may contact the instructor or department for information.

DT 6470 Health Ecology Elective
1-10 credit(s), max credits 10, 1 completion allowed;
Instructor: Born, David Omar
Description: Student may contact the instructor or department for information.

DT 6480 Advanced General Dentistry Elective
1-10 credit(s), max credits 10, 1 completion allowed;
Instructor: Born, David Omar
Description: Student may contact the instructor or department for information.

DT 6490 Health Ecology: Independent Study
1-10 credit(s), max credits 10, 1 completion allowed;
Instructor: Born, David Omar
Description: Student may contact the instructor or department for information.

DT 6624 Periodontology Clinic
A-F only, 2 credit(s); prereq Carranza Jr., F.A. and Newman, M.G.: Clinical Periodontology, 8th edition, W.B. Saunders Co., 1996.;
Instructor: Carlson, Jeffrey F
Description: Student may contact the instructor or department for information.

DT 6715 Advanced Endodontic Elective
S-N only, 0 credit(s);
Instructor: Baisden, Michael Kenneth
Description: Student may contact the instructor or department for information.

DT 6811 Operative Dentistry Clinic I
A-F only, 4 credit(s); prereq Operative Dentistry I, II, III, Operative Dentistry I and II Lab;
Instructor: Ziegler, Edgar F
Description: Student may contact the instructor or department for information.

DT 6814 Operative Dentistry Clinic IV
A-F only, 4 credit(s); prereq Operative Dentistry I, II, III, Operative Dentistry I and II Lab;
Instructor: Ziegler, Edgar F
Description: Student may contact the instructor or department for information.

DT 6840 Introduction to CAD/CAM CEREC Restorations
S-N only, 2 credit(s);
Instructor: Zidan, Omar
Description: Student may contact the instructor or department for information.
DENT 6912 Fixed Prosthodontics Clinic I
A-F only, 5 credit(s); prereq The first course of a 2 semester sequence course;
Instructor: Cook,Gary Eugene
Description: Student may contact the instructor or department for information.

DENT 6914 Fixed Prosthodontics Clinic III
A-F only, 5 credit(s); prereq 4810, 4811;
Instructor: Cook,Gary Eugene
Description: Student may contact the instructor or department for information.

DENT 6921 Removable Prosthodontics Clinic I
A-F only, 5 credit(s);
Instructor: Cook,Gary Eugene
Description: Student may contact the instructor or department for information.

DENT 6923 Removable Prosthodontics Clinic III
A-F only, 3 credit(s); prereq 4962, 4963;
Instructor: Cook,Gary Eugene
Description: Student may contact the instructor or department for information.

DENT 7000 Dental Clinic
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Olin,Paul S
Description: Student may contact the instructor or department for information.

DENT 7031 Advanced Seminar in Clinical Geriatric Dentistry
S-N only, 1-2 credit(s); prereq [Advanced or grad] student in [dentistry or other AHC discipline];
Instructor: Shuman,Stephen K
Description: Student may contact the instructor or department for information.

DENT 7032 Field Experience: Administration in a Multidisciplinary Health Center
1-3 credit(s), max credits 3, 1 completion allowed;
Instructor: Shuman,Stephen K
Description: Student may contact the instructor or department for information.

DENT 7051 Advanced Study in the Theory and Principles of Oral Medicine
A-F only, 2 credit(s);
Instructor: Rhodus,Nelson L
Description: Student may contact the instructor or department for information.

DENT 7061 Special Oral Pathology I
A-F only, 0 credit(s); prereq Resident [or grad student] in discipline other than oral pathology;
Instructor: Koutsias,Joanna George
Description: Student may contact the instructor or department for information.

DENT 7102 Conscious Sedation
A-F only, 2 credit(s); prereq Dentistry grad student;
Instructor: Hinrichs DDS,MS,James Edward
Description: Student may contact the instructor or department for information.

DENT 7111 Current Literature Review in Dentistry
S-N only, 2 credit(s); prereq Grad student in [dentistry or oral biology] or instr consent ;
Instructor: Schulte,John K
Description: Student may contact the instructor or department for information.

DENT 7112 Treatment Planning Seminar
A-F only, 2 credit(s), max credits 4;
Instructor: Schulte,John K
Description: Student may contact the instructor or department for information.

DENT 7911 Independent Study
OPT No Aud, 1-4 credit(s), max credits 8; prereq Enrolled in an advanced dental education program;
Instructor: Shuman,Stephen K
Description: Student may contact the instructor or department for information.

DENT 8090 Evidence-based Clinical Pediatric Dentistry
A-F only, 2 credit(s);
Instructor: Grothe,Ron
Description: Student may contact the instructor or department for information.

DENT 8100 Topics in Advanced Periodontology: Literature Review
2 credit(s);
Instructor: Costalonga,Massimo
Description: Student may contact the instructor or department for information.

DENT 8120 Advanced Principles and Techniques of TMJ and Orofacial Pain Disorders
A-F only, 3 credit(s); prereq Participation in TMJ and orofacial pain advanced education program;
Instructor: Schiffman,Eric L
Description: Student may contact the instructor or department for information.

DENT 8121 Current Literature in TMJ and Craniofacial Pain
A-F only, 1 credit(s);
Instructor: John,Mike Torsten
Description: Student may contact the instructor or department for information.

DES 1101V Honors: Introduction to Design Thinking
A-F only, 4 credit(s); prereq credit will not be granted if credit already received for: DHA 1101V Honors student; Meets CLE req of Arts/Humanities; meets CLE req of Writing Intensive;
Instructor: Hemmis,Patricia
Description: DHA 1101v-Introduction to Design Thinking Honors is an introduction to the theories and processes that underpin design thinking and practice. In this Honors course, students will investigate the interactions between humans and their natural, social, and designed environments where purposeful design helps determine the quality of those interactions. Students will be introduced to many facets of the design profession and will gain an interdisciplinary perspective about design and human behavior. This course offers students the opportunity to raise their awareness about the value, power, practice, and responsibility of design in our culture. Audience: This course is intended for undergraduate Honors students with an interest in pursuing design and design-related areas as professions: through clothing design, architecture, interior design, graphic design, housing studies, product design, landscape architecture, urban design and planning, and retail merchandising. This course is also a primary core requirement in the U of M undergraduate design minor. Secondary audiences might be any students who are interested in diverse types of thinking or design processes. Rationale: This course creates an opportunity for all design and design-related students to be in the same classroom, learning from faculty and practitioners of different design specializations, and learning from one another. This setting exposes students to all facets of design and provides them an interdisciplinary perspective about design and human behavior. For non-design students, the course offers the opportunity to raise their awareness about the value and the power of design in our culture. Texts: A required packet of
This introduction to design thinking course, students will focus on the development of creative skills. This is the course. Assignments, lectures, discussions, and projects all use and mastery of creativity is the goal for this class and this large project, but it must be developed and practiced. All of us field. It is a skill that can be employed on a small project or on a large project, but it must be developed and practiced. All of us opportunity to raise their awareness about the value, power, practice, and responsibility of design in our culture. Audience: This course is intended for undergraduate students with an interest in pursuing design and design-related areas as professions: through clothing design, architecture, interior design, graphic design, housing studies, product design, landscape architecture, urban design and planning, and retail merchandising. This course is also a primary core requirement in the U of M undergraduate design minor. Secondary audiences might be any students who are interested in diverse types of thinking or design processes. Rationale: This course creates an opportunity for all design and design-related students to be in the same classroom, learning from faculty and practitioners of different design specializations, and learning from one another. This setting exposes students to all facets of design and provides them with an interdisciplinary perspective about design and human behavior. For non-design students, the course offers the opportunity to raise their awareness about the value and the power of design in our culture. Texts: A required packet of readings and supplemental notes will be available from Books Underground, the bookstore in the St. Paul Student Center. A limited number of packets are also available from the Coffman Union Bookstore.

**Style**: 50% Lecture, 10% Film/Video, 25% Small Group Activities, 15% Guest Speakers. Students complete and present to hands-on group projects on design topics. Students work on projects in class, although outside time is also necessary.

**Grading**: 30% mid exam, 20% laboratory, 10% Small Group Activities, 10% Demonstration, 5% Field Trips, 10% Guest Speakers, 5% Web Based.

**Grading**: 10% mid exam, 60% special projects, 10% attendance, 20% reflection paper.

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**Description**: This course is intended for undergraduate students with an interest in pursuing design and design-related areas as professions: through clothing design, architecture, interior design, graphic design, housing studies, product design, landscape architecture, urban design and planning, and retail merchandising. This course is also a primary core requirement in the U of M undergraduate design minor. Secondary audiences might be any students who are interested in diverse types of thinking or design processes. Rationale: This course creates an opportunity for all design and design-related students to be in the same classroom, learning from faculty and practitioners of different design specializations, and learning from one another. This setting exposes students to all facets of design and provides them with an interdisciplinary perspective about design and human behavior. For non-design students, the course offers the opportunity to raise their awareness about the value and the power of design in our culture. Texts: A required packet of readings and supplemental notes will be available from Books Underground, the bookstore in the St. Paul Student Center. A limited number of packets are also available from the Coffman Union Bookstore.

**Style**: 50% Lecture, 10% Film/Video, 25% Small Group Activities, 15% Guest Speakers. Students complete and present to hands-on group projects on design topics. Students work on projects in class, although outside time is also necessary.

**Grading**: 30% reports/papers, 30% special projects, 35% quizzes, 5% reflection paper.

**Exam Format**: Exams are composed of short answer, essay, and fill in the blank. Exams require students to identify and apply course concepts

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DES 1910W Freshman Seminar: Storytelling
A-F only, 3 credit(s), max credits 6; prerequisite FR; Meet CLE req of Writing Intensive;
Instructor: Hokanson, Brad
Description: How we convey information and convince others often occurs through the use of stories; we use narrative to structure our understanding of the world or of our context; and we use myth as a means to provide order even in the most technological of worlds. Examining the use of stories will provide tools and skills valuable in the world of the future; valuable for any university student. Skill with narrative, as taught in the Harvard Business School, can be a valuable tool and a worthwhile skill. Stories will be developed in written, oral, and visual form. The end products of the class will include oral presentations, written stories, and graphic novels or comic books. Class will have a number of components, all focused on the development of skills tied together by storytelling. We will have a final performance/presentation for the term of work from the semester.

DES 1910W Freshman Seminar: Printing for Designers
A-F only, 3 credit(s), max credits 6; prerequisite FR; Meet CLE req of Writing Intensive;
Instructor: Boyd Brent, James W
Description: Printing for Designers is a studio and research exploration of how designers reproduce their ideas in print. The studio component of the course will center on hands-on screenprinting in the Surface Design Studio in McNeal Hall, and will also include hands-on introduction to monotyping, letterpress printing, relief printing, and digital printing. A variety of printing surfaces will be used, including paper and fabric. The research component of the class will focus on how contemporary printing technologies are changing, and the effect these changes are having on creative production in the design world, and will also include a brief overview of the history of printing. This class is open to all majors, regardless of background or art/design experience.

DES 201 Strategic Career Planning for Design
A-F only, 1 credit(s); prerequisite, jr, sr, [graphic design or interior design or clothing design or environmental design or architecture] major;
Instructor: Daves, Christine
Description: This course is meant to teach you the skills necessary to land a great job or internship in the field of design! By the end of this class, you will feel more confident about the steps necessary to obtain a good position. Through in-class activities and homework assignments, you will learn how to create a strong resume, how to market your skills to employers and how to find job openings for your field. The skills you learn in this class will help you throughout your future career!

DES 3321 Introduction to Furniture Design
A-F only, 3 credit(s);
Instructor: Oliphant, Thomas Arthur
Description: This course will introduce the topic of Furniture Design as discipline, not as method. Material, sensual, and aesthetic, both sublime and mundane; the objects that mediate our environment will be examined within broad context. History, Design Criteria, Technology and Craft will be discussed. Projects will include both a group case-study/ research presentation, and the individual making/presenting of a concept-prototype.

DES 3311 Travels in Typography
A-F only, 3 credit(s);
Instructor: Moran, Bill
Description: Travels in Typography: A hands-on survey. From Gutenberg to Gill, from papyrus to paper, immerse yourself in the tactile qualities of the printed word. This class will map the development of writing and its offspring, movable type, using the exceptional resources of the internationally-renowned James Ford Bell Library at the University of Minnesota. Throughout the semester students will use the Bell Library’s rare book and map collection to undertake hands-on design exercises that take them on a historical and practical tour of all the major developments in typography, including stoneworking, calligraphy and letterpress printing.

DES 4301 Design Minor Seminar
A-F only, 3 credit(s); prerequisite, Design minor;
Instructor: Hemmis, Patricia
Description: In this course, we will examine the powerful role of metaphors and related tropes when conceptualizing meanings within the designed environment. We will explore Lakoff and Johnson’s notion that “our ordinary conceptual system is metaphorical in nature, and that as a result, metaphors affect the ways we perceive, think and act.” We will use these ideas to raise questions about the role of tropes in the designed environment. Through discussion and assignments, students will analyze fundamental metaphoric conceptualizations in addition to identifying and analyzing newly emerging metaphors. We will examine the current role of metaphor in the design process and explore the possibility of an expanded usefulness.

DES 5160 Topics in Design
A-F only, 1-4 credit(s), max credits 24, 6 completions allowed;
Instructor: Martin, Caren Samter

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Description: Student may contact the instructor or department for information.

DSSC 8115 Human Factors in Design
A-F only, 3 credit(s); prereq Grad student or sr or instr consent credit will not be granted if credit already received for: DHA 5185;
Instructor: Dunne,Lucy Elizabeth
Description: Human Factors in Design is an introductory course in which we explore the various facets of human factors through the lens of design. We begin with the physical body (anthropometrics, physical ergonomics, sensory experiences), and move through cognition (attention, decision-making, HCI) to emotion (social issues, user experience.) This course assumes no prior exposure to human factors engineering or design: we apply theories and methods of assessing and addressing human factors through a product analysis project and a user-centered product design project. Typically the class is made up of students drawing from a wide variety of disciplines and experiences. **NEW THIS YEAR** Through a sponsorship by Nokia, we will be focusing on mobile phones in the course product design project (*widely* interpreted). Each student will receive a Nokia N8 smart phone to work with for the duration of the semester.
Style: 50% Lecture, 10% Film/Video, 10% Discussion, 15% Small Group Activities, 5% Student Presentation, 5% Studio, 5% Guest Speakers.

DSSC 8102 Quantitative Research Methods
A-F only, 3 credit(s); prereq credit will not be granted if credit already received for: DHA 8102;
Instructor: Johnson PhD,Kim KP
Description: Student may contact the instructor or department for information.

DSSC 8113 Teaching and Assessment
A-F only, 4 credit(s); prereq instr consent credit will not be granted if credit already received for: DHA 8113;
Instructor: Zollinger,Stephanie Watson
Description: Student may contact the instructor or department for information.

DSSC 8114 Design Studio
A-F only, 4 credit(s); prereq Design grad student or instr consent credit will not be granted if credit already received for: DHA 8114;
Instructor: McCarthy,Steven J
Description: Student may contact the instructor or department for information.

DDS 6234 Patient Management and Radiographic Interpretation
15-209 Malcolm Moos Health Sciences Tower

DDS 6214 General Histology
A-F only, 2 credit(s); prereq In DDS program;
Instructor: Danielson,Judy Ann
Description: This course is an introductory level didactic presentation of the fundamental concepts of oral and maxillofacial surgery. Emphasis is placed on the fundamental skills of oral surgery which apply to the practice of general dentistry.

DDS 6171 Orthodontics I
A-F only, 2.7 credit(s);
Instructor: De Felippe,Nanci Lara
Description: Student may contact the instructor or department for information.

DDS 6213 Microbiology for Dental Students
A-F only, 4.7 credit(s); prereq in DDS program;
Instructor: Jardine,Paul James
Description: Student may contact the instructor or department for information.

DDS 6214 General Histology
A-F only, 4 credit(s); prereq Accepted into DDS program;
Instructor: Buchanan,Judith A
Description: The purpose of this course is for students to learn the structure and basic function of cells, tissues, organs and organ systems. The course begins with description and discussion of cells that comprise the basic tissues. The unique arrangement of basic tissues to form organs and organs systems is then discussed. The course ends with discussion of general concepts of human embryologic development and embryologic development of head and neck structures. The intent is for students to have a clear mental image of the human body at the microscopic level at the successful completion of the course. Students are expected to be competent to describe and identify the structural microscopic features and functions of cells, tissues, organs and organ systems. The information and concepts students learn in general histology will be used to facilitate learning in other biomedical science courses, such as biochemistry, physiology, gross anatomy, oral histology, pathology, microbiology, pharmacology and oral pathology.

DDS 6234 Patient Management and Radiographic Interpretation
A-F only, 2 credit(s); prereq in DDS program;
Instructor: Ahmad,Mansur
Description: Student may contact the instructor or department for information.
Description: Student may contact the instructor or department for information.

DDS 6235 Oral Radiology Preclinical Lab I
S-N only, 0.9 credit(s); prereq In DDS program;
Instructor: Ahmad,Mansur
Description: Student may contact the instructor or department for information.

DDS 6243 Oral Radiology Clinic
A-F only, 0.5 credit(s); prereq 3rd yr DDS student;
Instructor: Ahmad,Mansur
Description: Student may contact the instructor or department for information.

DDS 6271 TMD & Orofacial Pain
A-F only, 0.8 credit(s);
Instructor: Nixdorf,Donald R
Description: Student may contact the instructor or department for information.

DDS 6331 Dental Care Delivery and Oral Epidemiology
A-F only, 1.9 credit(s); prereq 1st yr in DDS Program;
Instructor: Born,David Omar
Description: The course presents the dentist as engaged with multiple communities, as a professionally responsible and ethical individual. Students emerge from the course understanding the public health approach to disease and the tools used to address the public's oral health needs. In addition, students will have an understanding of the ways in which oral health care is delivered in the U.S. and of the factors impeding the supply and demand for dental services. The course director encourages students to develop analytical skills and to think critically about the delivery of dental care.

DDS 6337 Current Legal Issues for the New Dentist
A-F only, 2.1 credit(s); prereq In DDS program;
Instructor: Ryan,Mary-Lynn L
Description: Student may contact the instructor or department for information.

DDS 6411 Applied Dental Biomaterials
A-F only, 2 credit(s); prereq In DDS program;
Instructor: Combe,Edward Charles
Description: Student may contact the instructor or department for information.

DDS 6431 Oral Anatomy I
A-F only, 2 credit(s); prereq 1st yr DDS student;
Instructor: Madden,Michael John
Description: This course in oral anatomy is part of the pre-clinical curriculum and is designed to introduce the basic morphological characteristics of the human dentition and associate contiguous structures. The format includes lectures and laboratory. The laboratory is designed to assist in the development of your manual dexterity skills and at the same time facilitate the learning of dental anatomy of the human dentition. The aim of this course is to provide foundational knowledge that could be applied to most, if not all situations they may encounter in general clinical practice.

DDS 6432 Oral Anatomy Laboratory I
A-F only, 2.9 credit(s); prereq 1st yr DDS student;
Instructor: Madden,Michael John

DDS 6433 Introduction to Psychomotor Skill Development I and II
S-N only, 0.7 credit(s), max credits 1.4; prereq 1st yr DDS student;
Instructor: Phair,Craig B
Description: The purpose of this course is to develop specific psychomotor skills through the use of virtual reality training that will better prepare dental students for the further development of their skills in the Prosthodontics and Operative courses. Psychomotor skills, mirror skills and proper ergonomics through the preparation of intra-crownal cavity preparations will be the emphasis of this course. Objective feedback utilized by the "Dent Sim" technology will provide the student instantaneous evaluation of their progress.

DDS 6437 Operative Dentistry II Lab
A-F only, 2.9 credit(s); prereq In DDS program;
Instructor: Phair,Craig B
Description: Student may contact the instructor or department for information.

DDS 6439 Operative Dentistry IV
A-F only, 1.4 credit(s); prereq 3rd yr DDS student;
Instructor: Zidan,Omair
Description: Student may contact the instructor or department for information.

DDS 6475 Preclinical Prosthodontics Techniques Lecture IV
A-F only, 1.8 credit(s); prereq DDS program;
Instructor: Conrad,Heather Joan
Description: Student may contact the instructor or department for information.

DDS 6476 Preclinical Prosthodontics Techniques Laboratory IV
A-F only, 4.8 credit(s); prereq In DDS program;
Instructor: Conrad,Heather Joan
Description: Student may contact the instructor or department for information.

DDS 6611 Elective Short Term Externship
S-N only, 1-5 credit(s), max credits 25, 5 completions allowed; prereq DDS Program;
Instructor: Berthold,Peter
Description: Student may contact the instructor or department for information.

DDS 6613 Endodontic Topics for the General Dentist
S-N only, 0 credit(s);
Instructor: Baisden,Michael Kenneth
Description: Student may contact the instructor or department for information.

DDS 6621 Introduction to CAD/CAM Restorations
S-N only, 2 credit(s);
Instructor: Zidan,Omair
Description: Student may contact the instructor or department for information.

DDS 6911 Essentials of Clinical Care: D3
S-N only, 4-18 credit(s), max credits 54, 3 completions allowed; prereq DDS 3rd yr;
Instructor: Buchanan,Judith A
Description: Student may contact the instructor or department for information.

DDS 6921 Essentials of Clinical Care: D4
S-N only, 6-18 credit(s), max credits 54, 3 completions allowed; prereq DDS 4th yr;
Instructor: Buchanan,Judith A
Description: Student may contact the instructor or department for information.

Dutch
192 Klaeber Court

DTCH 1001 Beginning Dutch
5 credit(s); Credit will not be granted if credit has been received for: DTCH 4001;

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
DTCH 3011 Conversation and Composition

Description: In an interview Renate Dorrestein, writer of one of the texts for this course, says: ?We need stories in order to understand ourselves and the world around us, and to understand how difficult it is to be a human being. And how difficult it is to continue to be a decent human being when circumstances turn very indecent.? The topic of this course is the family, or more precisely how unfortunate circumstances can destroy family relationships. We will explore and discuss how the end of pillariization, the sexual revolution, the loosening of religious ties and the influence of foreign cultures through immigration in Dutch society have changed the modern family in the Netherlands. Students will read six novels in Dutch, discuss these novels in class (in Dutch), and write an essay (in Dutch) on each novel. Selected Dutch movies in the context of the course topic will be screened as well.

Style: 10% Lecture, 10% Film/Video, 50% Discussion, 30% Small Group Activities.
Grading: 30% reports/papers, 20% journal, 20% in-class presentation, 30% class participation. reading journals and other informal writing assignments of varying lengths

Exam Format: essays

DTCH 3310 Studies in Dutch Literature: Family Values in Dutch Literature and Film

3 credit(s), max credits 9, 3 completions allowed; prereq Reading knowledge of Dutch;
Instructor: Oosterhoff, Jennke A
Description: Class Description: In an interview Renate Dorrestein, writer of one of the texts for this course, says: ?We need stories in order to understand ourselves and the world around us, and to understand how difficult it is to be a human being. And how difficult it is to continue to be a decent human being when circumstances turn very indecent.? The topic of this course is the family, or more precisely how unfortunate circumstances can destroy family relationships. We will explore and discuss how the end of pillariization, the sexual revolution, the loosening of religious ties and the influence of foreign cultures through immigration in Dutch society have changed the modern family in the Netherlands. Students will read six novels in Dutch, discuss these novels in class (in Dutch), and write an essay (in Dutch) on each novel. Selected Dutch movies in the context of the course topic will be screened as well.

Style: 10% Lecture, 10% Film/Video, 50% Discussion, 30% Small Group Activities.
Grading: 30% reports/papers, 20% journal, 20% in-class presentation, 30% class participation. reading journals and other informal writing assignments of varying lengths

Exam Format: essays

DTCH 1003 Intermediate Dutch

5 credit(s); prereq 1002; Credit will not be granted if credit has been received for: DTCH 4003;
Instructor: Oosterhoff, Jennke A
Description: Hallo, mijn naam is Jan. Ik kom uit Nederland. Ik woon in Minneapolis. Ik studeer economie. Wow, isn’t it amazing how similar Dutch is to English? And yet the culture is refreshingly different, in many ways. Come join us for Dutch 1001, the first course in the first-year language instruction sequence (1001-2), designed to develop a basic communicative proficiency in Dutch. You will practice the four language skills (speaking, writing, reading, and listening) and learn to handle simple, everyday transactions. The main books are the text book and DVD of "Nederlands in Actie". This book is accompanied by audio and visual material which the instructor will use in class and you are expected to use at home. Class time will be devoted mostly to speaking and pre-writing activities. You will write 6 formal essays, each of which will be followed by a rewrite. In addition, you will read two Dutch novels, followed by film viewings. The course includes a variety of supplementary materials on Dutch life and culture: video sections from Dutch TV, information from Dutch websites, Dutch film, etc. You should expect an average of three hours of outside preparation per class session. See the description for Dtch 4001 for an option for qualified students to register for this course for 2 credits (and lower tuition) instead of 4 credits.

Style: 20% Lecture, 20% Discussion, 10% Laboratory, 40% Small Group Activities, 10% Web Based. interactive exercises (including lab)
Grading: 10% mid exam, 10% final exam, 40% quizzes, 10% written homework, 20% in-class presentation, 10% other evaluation. written homework

Exam Format: quizzes, tests

DTCH 3993 Directed Studies

1-5 credit(s), max credits 12, 12 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: STAFF
Description: Guided individual reading or study. The student approaches an appropriate professor with a topic of interest, and if the professor has time and is willing to guide the student, the student, along with the professor, fills out a form which is available in the department office (205 Folwell). On this form, they specify the topic, reading and study materials, and form of evaluation.

DTCH 4001 Beginning Dutch

2 credit(s); prereq 1004 in another language or passing score on LPE or grad student; Credit will not be granted if credit has been received for: DTCH 1001;
Instructor: Oosterhoff, Jennke A
Description: Hallo, mijn naam is Jan. Ik kom uit Nederland. Ik woon in Minneapolis. Ik studeer economie. Wow, isn’t it amazing how similar Dutch is to English? And yet the culture is refreshingly different, in many ways. Come join us for Dutch 1001, the first course in the first-year language instruction sequence (1001-2), designed to develop a basic communicative proficiency in Dutch. You will practice the four language skills (speaking, writing, reading, and listening) and learn to handle simple, everyday transactions. The main books are the text book and exercise book of "Code," volume 1. The book is accompanied by audio and visual material which the instructor will use in class and you are expected to use at home. Class time will be devoted mostly to speaking and listening activities.
Supplementary materials about life and culture in Holland (short authentic and literary texts, songs, video, pictures) will be an integral part of the course. The first-year courses encourage extensive student interaction, partner activities, and group work. A selection of topics to be introduced includes: shopping, going out, giving directions, looking for housing, traveling, etc. You should expect an average of 2 hours of outside preparation for each class session. See the description for Dtch 4001 for an option for qualified students to register for this course for 2 credits (and lower tuition) instead of 4 credits.

Style: 20% Lecture, 10% Film/Video, 40% Discussion, 30% Small Group Activities. 20% Laboratory, 20% Discussion, 10% Laboratory, 40% Small Group Activities.
Grading: 30% reports/papers, 20% journal, 20% in-class presentation, 30% class participation. reading journals and other informal writing assignments of varying lengths

Exam Format: essays

DTCH 3011 Conversation and Composition

3 credit(s); prereq 1004 or 4004 or instr consent;
Instructor: Oosterhoff, Jennke A
Description: Class Description: In an interview Renate Dorrestein, writer of one of the texts for this course, says: "We need stories in order to understand ourselves and the world around us, and to understand how difficult it is to be a human being. And how difficult it is to continue to be a decent human being when circumstances turn very indecent.? The topic of this course is the family, or more precisely how unfortunate circumstances can destroy family relationships. We will explore and discuss how the end of pillariization, the sexual revolution, the loosening of religious ties and the influence of foreign cultures through immigration in Dutch society have changed the modern family in the Netherlands. Students will read six novels in Dutch, discuss these novels in class (in Dutch), and write an essay (in Dutch) on each novel. Selected Dutch movies in the context of the course topic will be screened as well.

Style: 10% Lecture, 10% Film/Video, 50% Discussion, 30% Small Group Activities.
Grading: 30% reports/papers, 20% journal, 20% in-class presentation, 30% class participation. reading journals and other informal writing assignments of varying lengths

Exam Format: essays
EMS 8500 Topics in Early Modern Studies: Abundance and Scarcity
3 credit(s), max credits 6; prereq Grad student;
Instructor: Waltner, Ann Beth
Description: Student may contact the instructor or department for information.

EMS 8500 Topics in Early Modern Studies: Foundations in the History of Early Medicine
3 credit(s), max credits 6; prereq Grad student;
Instructor: Shackleford, Jole Richard
Description: Student may contact the instructor or department for information.

EMS 8500 Topics in Early Modern Studies: Medieval Urban History
3 credit(s), max credits 6; prereq Grad student;
Instructor: Reyerson, Kathryn L
Description: Student may contact the instructor or department for information.

EMS 8500 Topics in Early Modern Studies: Music of J. S. Bach
3 credit(s), max credits 6; prereq Grad student;
Instructor: Gaudio, Michael P
Description: Student may contact the instructor or department for information.

EMS 8500 Topics in Early Modern Studies: Critical Issues: Theatre
3 credit(s), max credits 6; prereq Grad student;
Instructor: Harness, Kelley A
Description: Student may contact the instructor or department for information.

EMS 8500 Topics in Early Modern Studies: Visual Culture of the Atlantic World
3 credit(s), max credits 6; prereq Grad student;
Instructor: Gaudio, Michael P
Description: Student may contact the instructor or department for information.

EMS 8500 Topics in Early Modern Studies: Seminar in Shakespeare: Performing Shakespeare
3 credit(s), max credits 6; prereq Grad student;
Instructor: Schei, Katherine West
Description: From early modern London theatres to twenty-first century American prisons, from appropriations of Macbeth in Bollywood (Maqbool) to an Aboriginal As You Like It, this course focuses on the performance history of Shakespeare, from the early modern period to the present. We will begin with the recent renewed interest in the material conditions of the early modern stage, and then move through selected highlights of performance history of subsequent centuries, ending with contemporary performance of Shakespeare, particularly on the global stage. We will use five or six plays as examples for analyzing how the Shakespearean text is adapted and reshaped by subsequent generations of writers, playwrights, and audiences in different historical periods and geographical locales, and we will explore various reasons for those performances/adaptations according to historical, social, and cultural practices.

EMS 8500 Topics in Early Modern Studies: Early Modern Literature and Culture
3 credit(s), max credits 6; prereq Grad student;
Instructor: Matar, Nabil I
Description: Student may contact the instructor or department for information.

EMS 8500 Topics in Early Modern Studies: Issues in Pre-Columbian and Latin American Art
3 credit(s), max credits 6; prereq Grad student;
Instructor: Afanador-Pujol, Angelica J
Description: From the art of prisoners to the art about prisoners, justice as a concept in art has helped reveal and conceal inequalities. This seminar looks at the ways cultures in through time and space have conceptualized, constructed, and
EAS 3461 Introduction to East Asia I: The Imperial Age
3-4 credit(s), max credits 4, 1 completion allowed; Credit will not be granted if credit has been received for: HIST 3461; Instructor: Wang, Liping
Description: This is a comprehensive introduction to East Asia (China, Japan, Korea, and Vietnam) from prehistoric times to the sixteenth century. It traces the evolution of major political and economic institutions as ways to understand basic structures of political authority and systems of resource distribution in these societies. It outlines major schools of East Asian philosophy and religions, such as Confucianism, Daoism, and Buddhism, and discusses their development and influence in each of the four countries. It analyzes some of the most important features of East Asian society, i.e., family structure and gender relationships in ideology as well as in practice. As part of the overview of East Asian society and culture, the course also introduces main modes of artistic expression through various kinds of visual materials as well as visit to museum. The course stresses the inter-connections within East Asia while highlighting the distinctive paths of historical changes in each of the four countries.
Style: 80% Lecture, 20% Discussion.

EAS 3468 Social Change in Modern China
3 credit(s); Credit will not be granted if credit has been received for: HIST 3468; Instructor: Wang, Liping
Description: This course explores major issues in modern Chinese society. It begins with the Opium War in 1840 and traces the relationship between anti-drug effort and state building to the 1980s. It examines the New Culture Movement in the 1920s and links it to the emergence of cosmopolitan culture, new women, and popular nationalism. It retells the story of the Great Leap Forward in the 1950s and uses it to analyze the increasing urban/rural gaps under the PRC. It also devotes considerable time to the importance of gender and ethnicity since the early 20th century. Students will achieve a good understanding of modern China through reading and discussing up-to-date scholarship on these above themes and issues. This course is for undergraduate students, both majors and non-majors.
Style: 60% Lecture, 40% Discussion.
Grading: 80% reports/papers, 20% class participation.

EAS 3471 Modern Japan, Meiji to the Present (1868-2000)
3 credit(s); Credit will not be granted if credit has been received for: HIST 3471; Meets CLE req of Historical Perspectives;
Instructor: Mizuno, Hiromi
Description: From the land of samurai to the only non-Western colonial power, from the severely destructed nation of WWII “war criminals” to the economic miracle, Japan went through immense changes from the mid-19th to the 21st century. How did the Japanese leaders and people make these changes and why? How have the Japanese themselves understood their changing nation and relationship to the world? How can we make sense of Japan’s complicated past that made the nation the “Japan” we know today? This course explores the intellectual, cultural, and political aspects of Japan’s modernization, the Pacific War, and postwar development, using visual images from museums, cartoons, advertisement, and films as well as fictional and non-fictional writings. The course is based on lecture but also integrates various kinds of assignments that stimulate discussion.
Style: 90% Lecture, film viewing
Grading: 70% reports/papers, 10% quizzes, 20% other

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on the history of ecosystem ecology and on climate and soils, but will focus primarily on element cycling, particularly carbon and nutrient cycles. We will examine the energy base of ecosystems?what controls carbon fixation by plants and what is the fate of that fixed carbon. We will also study nutrient inputs to, cycling through, and losses from ecosystems. The second half will focus on interactions and perturbations, including those resulting from human-induced global changes. We will examine transfers of energy from primary producers to higher trophic levels and how herbivory and disturbances such as fire affect primary production and nutrient cycling. We will examine how elevated CO2, changing climate, increased atmospheric nitrogen deposition, biological invasions, and losses of biodiversity alter ecosystem processes. We will also discuss human dependence on ecosystems.

**Style:** 66% Lecture, 33% Discussion.

**Grading:** 35% mid exam, 40% final exam, 20% reports/papers, 5% class participation.

**Exam Format:** short-answer and essay

**EEB 8990 Seminar on Current Topics**
3-0-1 credit(s), max credits 30, 10 completions allowed; prereq [1st yr or 3rd sem] grad student, instr consent;

**Instructor:** Polasky,Stephen

**Description:** Student may contact the instructor or department for information.

**EEB 9999 Special Problems**
A-F only, 0-6 credit(s), max credits 30, 10 completions allowed; prereq 

**Instructor:** Powers,Jennifer Sarah

**Description:** Student may contact the instructor or department for information.

**ECON 1101 Principles of Microeconomics**
4 credit(s); prereq knowledge of plane geometry and advanced algebra credit will not be granted if credit received for: 1104, 1111, ApEc 1101; Credit will not be granted if credit has been received for: APEC 1101; Meets CLE req of Global Perspectives; meets CLE req of Social Sciences;

**Instructor:** Polasky,Stephen

**Description:** Econ 1101 satisfies the CLE requirements of the Social Science Core and of the Global Perspectives Theme. This is an introductory course in Economics. Topics covered include the behavior of consumers, firms, and markets in the domestic and world economy. Interdependencies in the global economy, and effects of global linkages on individual decisions.

**Style:** 75% Lecture, 25% Discussion.

**Grading:** All ECON 1101 students (in all sections) will take the midterm exams and final exam at the same time/day; there will be evening exams.

**Exam Format:** All ECON 1101 lectures (and accompanying recitation sections) will have two common midterm exams and one common final exam. These will be in the evening and will be announced on the course syllabi.
ECON 1101 Principles of Microeconomics
4 credit(s); prereq knowledge of plane geometry and advanced algebra credit will not be granted if credit received for: 1104, 1111, ApEc 1101; Credit will not be granted if credit has been received for: APEC 1101; Meets CLE req of Global Perspectives; meets CLE req of Social Sciences;
Instructor: Sager, Erick
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. This course examines the choices of individual consumers, firms, and markets. More specifically, you will explore a formal framework and analyze why people purchase certain goods, how firms choose a production strategy to maximize profit, and how changes in certain economic conditions and policies influence prices and quantities in markets.
Style: Online with handwritten assignments and exams
Grading: - Course Completion Calendar (required extra credit) - 5 written assignments (47.5%) - Midcourse exam (20%) - Final exam (32.5%)
Exam Format: Supervised, in-person (not online) exams

ECON 1102 Principles of Macroeconomics
4 credit(s); prereq [1101 or equiv], knowledge of plane geometry and advanced algebra credit will not be granted if credit received for: 1105, 1112, ApEc 1102; Credit will not be granted if credit has been received for: APEC 1102;
Instructor: STAFF
Description: This is an introductory course in Economics, to be taken after completing Econ 1101. It includes the study of macroeconomic indicators; the role of money; role of fiscal and monetary policy; international trade; interdependencies among nations.
Style: 75% Lecture, 25% Discussion. discussion section

ECON 1104 Principles of Microeconomics
4 credit(s); prereq knowledge of plane geometry and advanced algebra credit will not be granted if credit received for: 1105, 1112, ApEc 1102; Credit will not be granted if credit has been received for: APEC 1102;
Instructor: Amin, Minesh Devendra
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. This introductory course acquaints students with the basic tools in macroeconomics, including opportunity cost, debt, inflation, unemployment, the role of central banks, saving and investment, budget and trade deficits/surpluses, GDP, exchange rates, and fiscal and monetary policies. Basic macroeconomic tools and concepts are essential in understanding the economic way of thinking in a world with country interdependencies, multinational firms, and an increasingly open global economy. The concepts offer important insights into a variety of social, economic, and country interactions.
Style: Online with handwritten exams
Grading: 15% mid exam, 25% final exam. 29 Aplia assignments (40%) 2 essay assignments (20%)

ECON 1905 Freshman Seminar
A-F only, 3 credit(s); prereq freshman; Instruction: Sher, Itai
Description: "Strategic Thinking and Social Interaction" Game Theory is a field which studies strategic interaction. This may be important in any situation where a group of people interact and the decisions made by each person depend on the decisions made by others. Game Theory is relevant in many situations including nuclear deterrence and warfare, the theory of auctions, the analysis of different voting systems, political campaigns, competition among firms, and the formation of social networks. Game Theory is also a useful tool for studying concepts which are relevant to many social interactions such as reputation, threats, promises, cooperation, coordination, and incentives. This course will provide an informal introduction to the basic concepts of Game Theory, which does not require any mathematics. We will read and discuss articles about the many areas in which these notions apply.

ECON 3101 Intermediate Microeconomics
4 credit(s); prereq 1101, 1102 or equiv, Math 1271 or equiv; Credit will not be granted if credit has been received for: APEC 3001;
Instructor: STAFF
Description: This is a required course for Economics majors, and is a prerequisite for most upper-division Economics courses. It essentially provides you with tools necessary to work with economic theory. Students should have completed Calculus successfully PRIOR to taking this course. Students are NOT permitted to take Calc I concurrently. The course includes the study of consumer and producer behavior under competitive and monopolistic conditions; factors influencing production, price, and other decisions of the firm; applications of the theory.
Style: 100% Lecture.
Exam Format: problems, short essays

ECON 3102 Intermediate Macroeconomics
4 credit(s); prereq 3101 or equiv; Credit will not be granted if credit has been received for: APEC 3006;
Instructor: STAFF
Description: This is one of the two basic tool courses for Economics majors. The prerequisite is Econ 3101, which students must have completed successfully PRIOR to taking this course. Students are NOT permitted to take both concurrently, or take Econ 3102 prior to Econ 3101. The course includes determinants of national income, employment, and price level; effects of fiscal and monetary policies; with an emphasis on a general equilibrium approach. Economic growth is also discussed.
Style: 100% Lecture.
Exam Format: Problems and short essays

ECON 3951 Major Project Seminar
A-F only, 2 credit(s); prereq [3101 or 3102 or equiv], fr writing requirement satisfied;
Instructor: STAFF
Description: A senior project is a requirement for the BA and BA-Q degrees in Economics. Students work with the instructor to produce a significant piece of written work in Economics. Criteria for the paper: to demonstrate critical thinking in Economics; collection and analysis of data; economic analysis and effective interpretation of results. Should be modeled as an economics journal article. Check the Undergraduate Handbook (web version or hard copy) on the four ways to satisfy this requirement. Students will receive the syllabus via email.
Style: No formal meeting time. Please contact the instructor via email.
Grading: 100% reports/papers.

ECON 3960 Topics in Economics
3 credit(s), max credits 6; prereq 1101, 1102 or equiv;
Instructor: STAFF
Description: The Chinese Economy. The course includes the historical and economic development of China with emphasis on economic indicators. Role of China in the world economy today.
Style: 90% Lecture, 10% Discussion.
Exam Format: Essay and short problems

ECON 4100W Undergraduate Writing in Economics
A-F only, 1 credit(s), max credits 2; prereq 3101, [concurrent enrollment in 4831 or concurrent enrollment in economics honors course], instr consent; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Students can sign up for this one-credit course if they are concurrently registered for an Economics Honors course or for Econ 4101. This will enable them to make the honors course writing intensive. Students receive the assignment from the instructor of the honors course. The Econ 4100W TA works with students to help them write the paper. Students turn in various drafts to the TA and receive feedback on every assignment. The final product is the completed paper.
Grading: 100% reports/papers.
ECON 4109H Honors Course: Game Theory and Applications
4 credit(s); prereq 3101, 3102 or equiv, Math 1271-1272 or equiv;
Instructor: STAFF
Description: This is recommended for Economics majors with a
good mathematical background. Normal and extensive forms of
Games and applications of games.
Style: 90% Lecture, 10% Discussion.

ECON 4161 Microeconomic Analysis
2 credit(s); prereq [3101 or 5151 or equiv], Math 2243, Math 2263, instr consent;
Instructor: STAFF
Description: This is offered concurrently with Econ 8001 (a
Ph.D micro theory course for graduate students from other
departments). Please contact the instructor before registering for
the course. You MUST have completed all prerequisites. This is
a seven week mini-semester course worth two credits.
Style: 75% Lecture. In recitation section

ECON 4162 Microeconomic Analysis
A-F only, 4 credit(s); prereq 4161, instr consent;
Instructor: STAFF
Description: This is offered concurrently with Econ 8002 (a
Ph.D micro theory course for graduate students from other
departments). Please contact the instructor before registering for
the course. You MUST have completed all prerequisites. This is
a seven week mini-semester course worth two credits.
Style: 75% Lecture. In recitation section

ECON 4165 Macroeconomic Theory
2 credit(s); prereq [3102, [Math 2243, Math 2263] or equiv],
instr consent;
Instructor: STAFF
Description: This is offered concurrently with Econ 8105 (a
Ph.D macro theory course for economics graduate students).
Please contact the instructor before registering for the course.
You MUST have completed all prerequisites. This is a seven
week mini-semester course worth two credits.
Style: 75% Lecture. In recitation section

ECON 4166 Macroeconomic Theory
2 credit(s); prereq 4165, instr consent;
Instructor: STAFF
Description: This is offered concurrently with Econ 8106 (a
Ph.D macro theory course for economics graduate students).
Please contact the instructor before registering for the course.
You MUST have completed all prerequisites. This is a seven
week mini-semester course worth two credits.
Style: 75% Lecture. In recitation section

ECON 4211 Principles of Econometrics
4 credit(s); prereq [[1101, 1102] or equiv], Math 2243 or equiv],
[[Stat 3021, Stat 3022] or equiv], familiarity with
computers;
Instructor: STAFF
Description: This is a required course for Economics
B.A.-Quant majors. Students must have successfully completed
all prerequisites PRIOR to taking this course. The course
includes regression analysis, estimation procedures, and
computer applications.
Style: 75% Lecture. Recitation discussion
Exam Format: problems

ECON 4261 Introduction to Econometrics
A-F only, 4 credit(s); prereq [3101 or equiv], [[Math 1271,
Math 1272] or equiv], Math 2243, Math 2263, [[Stat 4101, Stat 4102]
or [Stat 5101, Stat 5102]]; Math 4242 strongly
recommended;
Instructor: STAFF
Description: This is a required course for Economics B.S.
majors. Students must have completed all prerequisites
successfully PRIOR to taking this course. The course includes
the basic linear regression model, time series analysis, panel
data, discrete choice models. Computer applications (normally
GAUSS is used).
Style: 75% Lecture. Recitation discussion
Exam Format: problems

ECON 4313 The Russian Economy
3 credit(s); prereq 1101, 1102 or equiv;
Instructor: STAFF
Description: Main features of the Soviet economy, economic
development from 1971 to mid-1980s. Collapse of the Soviet
Union in 1991. Economic reforms adopted by Russia. The CIS
states. Current Russian economy.
Style: 90% Lecture, 10% Discussion.
Exam Format: essay and problems

ECON 4311W Economic Development
3 credit(s); prereq 3101, 3102 or equiv; Credit will not be
granted if credit has been received for: ECON 4301; Meets
CLE req of Writing Intensive;
Instructor: STAFF
Description: Econ 4311W is an independent study course, and
students must have successfully completed the
ECON 4311W course. Students must be frontline majors.
Offered mainly for Economics majors. Includes material on
international trade and international finance. Theories of trade,
trade restrictions, commercial policy. Exchange rates,
international monetary systems. Students write a country paper.
Style: 90% Lecture, 10% Discussion.
Exam Format: essay, short problems

ECON 4315 Labor Economics
3 credit(s); prereq 3101, 3102 or equiv; Credit will not be
granted if credit has been received for: ECON 4301; Meets
CLE req of Writing Intensive;
Instructor: STAFF
Description: Economic analysis of labor markets; population
and labor force; labor market institutions; wage and employment
trends; labor unions and bargaining; public policy.
Style: 90% Lecture, 10% Discussion.
ECON 4631H Honors Course: Industrial Organization and Antitrust Policy
4 credit(s); prereq 3101 or equiv; Credit will not be granted if credit has been received for: ECON 4631;
Instructor: STAFF
Description: Relation between market structure, economic efficiency, and welfare. Economic origins of monopoly and other restraints on competition. Purpose and effects of antitrust and related legislation.
Style: 95% Lecture, 5% Discussion.

ECON 4721 Money and Banking
3 credit(s); prereq [3101, 3102] or equiv; Credit will not be granted if credit has been received for: ECON 3701;
Instructor: STAFF
Description: Theories of money demand and money supply. Financial intermediation, banking, nonbank financial institutions, bank regulation. Role of the Federal Reserve System. Monetary policy.
Style: 95% Lecture, 5% Discussion.

ECON 4721H Honors Course: Money and Banking
4 credit(s); prereq [3101 or equiv]; Math 1271; Credit will not be granted if credit has been received for: ECON 3701;
Instructor: STAFF
Description: Theories of money demand and money supply. Financial intermediation, banking, nonbank financial institutions, bank regulation. Role of the Federal Reserve System. Monetary policy.
Style: 95% Lecture, 5% Discussion.

ECON 4731 Macroeconomic Policy
3 credit(s); prereq 3101, 3102 or equiv;
Instructor: STAFF
Description: The emphasis of this course is on Macroeconomic Policy, studied in a quantitatively rigorous way. We begin by reviewing the household consumption and leisure choice, and the market-clearing model. We then study inflation, unemployment, growth, taxation, government debt, and monetary policy and fiscal policy.
Style: 95% Lecture, 5% Discussion.
Exam Format: problems, short essay

ECON 4751 Financial Economics
3 credit(s); prereq 3101 or equiv, Math 1271 or equiv, 1 sem statistics; Credit will not be granted if credit has been received for: ECON 4751H;
Instructor: STAFF
Style: 95% Lecture, 5% Discussion.
Exam Format: problems, short essay

ECON 4751H Honors Course: Financial Economics
4 credit(s); prereq 3101, [3102 or equiv], [Math 1271 or equiv], [Stat 3011 or equiv]; Credit will not be granted if credit has been received for: ECON 4751;
Instructor: STAFF
Description: Efficiency of financial markets. Theoretical concepts, empirical evidence.
Style: 95% Lecture, 5% Discussion.
Exam Format: Problem solving, essay

ECON 4821 Public Economics
3 credit(s); prereq Credit will not be granted if credit has been received for: ECON 3801; prereq 3101, 3102 or equiv; Credit will not be granted if credit has been received for: ECON 3801;
Instructor: STAFF
Style: 95% Lecture, 5% Discussion.
Exam Format: Short essays, problem solving

ECON 4831 Cost-Benefit Analysis
3 credit(s); prereq 3101 or equiv; Credit will not be granted if credit has been received for: ECON 4611H;
Instructor: STAFF
Description: Principles for evaluating benefits and costs of public projects or programs. Issues concerned with definition of benefits and costs. Rate of return, rate of discount. Market imperfections, risk, and uncertainty. Case studies.
Style: 95% Lecture, 5% Discussion.
Exam Format: Essay; problem solving

ECON 4993 Directed Study
1-4 credit(s), max credits 4, 1 completion allowed; prereq For honors thesis, instr consent;
Instructor: STAFF
Description: This is for economics honors theses only.

ECON 8001 Microeconomic Analysis
2 credit(s); prereq 5151 or equiv, Math 2243, Math 2263 or equiv or instr consent;
Instructor: Werner, Jan
Description: Student may contact the instructor or department for information.

ECON 8002 Microeconomic Analysis
2 credit(s); prereq 8001;
Instructor: Allen, Beth Elaine
Description: Student may contact the instructor or department for information.

ECON 8101 Microeconomic Theory
2 credit(s); prereq 5151 or equiv, Math 2243 or equiv, concurrent enrollment Math 5615 or concurrent registration in Math 8601, grad econ major or instr consent;
Instructor: Werner, Jan
Description: Student may contact the instructor or department for information.

ECON 8102 Microeconomic Theory
2 credit(s); prereq 8101, concurrent enrollment Math 5615 or concurrent enrollment Math 8601, grad econ major or instr consent;
Instructor: Allen, Beth Elaine
Description: Student may contact the instructor or department for information.

ECON 8105 Macroeconomic Theory
2 credit(s); prereq 5152 or equiv, Math 2243, Math 2263 or equiv or instr consent;
Instructor: Jones, Larry
Description: Student may contact the instructor or department for information.

ECON 8106 Macroeconomic Theory
2 credit(s); prereq 8105;
Instructor: Chari, Varadarajan V
Description: Student may contact the instructor or department for information.

ECON 8185 Advanced Topics in Macroeconomics
2 credit(s), max credits 4; prereq 8108 or instr consent;
Instructor: Rios-Rull, Jose Victor
Description: Student may contact the instructor or department for information.

ECON 8191 Workshop in Mathematical Economics
1-3 credit(s), max credits 10, 10 completions allowed; prereq 8104 or instr consent;
Instructor: Allen, Beth Elaine
Description: Student may contact the instructor or department for information.
ECON 8205 Applied Econometrics
2 credit(s); prereq Econ 8101, concurrent enrollment Econ 8105, concurrent enrollment Stat 5101 or instr consent;
Instructor: Petrin, Amil Kenneth
Description: Student may contact the instructor or department for information.

ECON 8206 Applied Econometrics
2 credit(s); prereq Econ 8205, concurrent enrollment Econ 8102, concurrent enrollment Econ 8106, concurrent enrollment Stat 5101 or instr consent;
Instructor: Petrin, Amil Kenneth
Description: Student may contact the instructor or department for information.

ECON 8311 Economic Growth and Development
2 credit(s); prereq Econ 8104, Econ 8106 or instr consent;
Instructor: Luttmer, Erzo
Description: Student may contact the instructor or department for information.

ECON 8391 Workshop in Economic Growth and Development
1-3 credit(s), max credits 10, 10 completions allowed; prereq instr consent;
Instructor: Chari, Varadarajan V
Description: Student may contact the instructor or department for information.

ECON 8401 International Trade and Payments Theory
2 credit(s); prereq Econ 8103, Econ 8105 or instr consent;
Instructor: Luttmer, Erzo
Description: Student may contact the instructor or department for information.

ECON 8402 International Trade and Payments Theory
2 credit(s); prereq Econ 8401 or instr consent;
Instructor: Holmes, Thomas Joseph
Description: Student may contact the instructor or department for information.

ECON 8502 Wages and Employment
2 credit(s); prereq Stat 5101 or instr consent;
Instructor: Fogli, Alessandra
Description: Student may contact the instructor or department for information.

ECON 8501 Advanced Topics in Labor Economics
2 credit(s), max credits 4; prereq Stat 5102 or instr consent;
Instructor: Rios-Rull, Jose Victor
Description: Student may contact the instructor or department for information.

ECON 8601 Industrial Organization and Government Regulation
2 credit(s); prereq Econ 8102 or instr consent;
Instructor: Holmes, Thomas Joseph
Description: Student may contact the instructor or department for information.

ECON 8602 Industrial Organization and Government Regulation
2 credit(s); prereq Econ 8601 or instr consent;
Instructor: Petrin, Amil Kenneth
Description: Student may contact the instructor or department for information.

ECON 8691 Workshop in Applied Microeconomics
1-3 credit(s), max credits 10, 10 completions allowed; prereq instr consent;
Instructor: Petrin, Amil Kenneth
Description: Student may contact the instructor or department for information.

ECON 8701 Monetary Economics
2 credit(s); prereq Econ 8103, Econ 8106 or instr consent;
Instructor: Weber, Warren E
Description: Student may contact the instructor or department for information.

ECON 8702 Monetary Economics
2 credit(s); prereq Econ 8701 or instr consent;
Instructor: Weber, Warren E
Description: Student may contact the instructor or department for information.

ECON 8704 Financial Economics
2 credit(s); prereq Econ 8103, Econ 8106 or instr consent;
Instructor: Mc Grattan, Ellen Rose
Description: Student may contact the instructor or department for information.

EDHD 1920 CEHD Special Topics: America Reads: Tutoring, Literacy & Engagement
1 credit(s), max credits 6;
Instructor: Miller, Rosemary F
Description: America Reads: Tutoring, Literacy, and Social Justice is the second class in the America Reads course requirement two-part series. Continued employment as an America Reads Tutor is required to register. This course includes four 2-hour class sessions and corresponding community engagement assignments. Students in this course will continue to develop their tutoring techniques and skills and more deeply explore what it means to be a civically engaged and aware citizen. Topics covered include- ?Tutoring English Language Learners?, ?Homelessness in the Twin Cities?, ?Social Justice and Civic Engagement?, and ?Eye on Literacy?. Grads are awarded based on attendance, in-class participation, and completion of all journal and community engagement assignments. Completion of this semester fulfills the course requirement for all first and second year America Reads Tutors.

EDHD 1920 CEHD Special Topics: America Reads: Tutoring, Literacy & Engagement
1 credit(s), max credits 6;
Instructor: Miller, Rosemary F
Description: America Reads: Tutoring, Literacy, and Social Justice is the second class in the America Reads course requirement two-part series. Continued employment as an America Reads Tutor is required to register. This course includes four 2-hour class sessions and corresponding community engagement assignments. Students in this course will continue to develop their tutoring techniques and skills and more deeply explore what it means to be a civically engaged and aware citizen. Topics covered include- ?Tutoring English Language Learners?, ?Homelessness in the Twin Cities?, ?Social Justice and Civic Engagement?, and ?Eye on Literacy?. Grads are awarded based on attendance, in-class participation, and completion of all journal and community engagement assignments. Completion of this semester fulfills the course requirement for all first and second year America Reads Tutors.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
Engagement is a 1 credit course that is required for all first and second year America Reads Tutors. The course consists of an initial New Tutor Orientation, three 2-hour class sessions, and corresponding community engagement assignments which will take place within the greater community. Fall Semester?Ts topics focus on pertinent issues related to the tutoring experience and which contribute to an overall understanding of the Twin Cities community. Topics include: ?Immigration in the Twin Cities?, ?Lesson Planning and Choosing Appropriate Children?s Books?, and ?Developing Reading Comprehension?. Participation in this class will assist students in becoming more proactive, competent tutors and more aware, engaged community members. Grades will be awarded based on attendance, in-class participation, and successful completion of all journal and community engagement assignments. America Reads supervisor?s permission needed to register.

EDHD 3001 Exploring the Teaching Profession I
A-F only, 2 credit(s); prereq DirecTrack to Teaching program or college consent ;
Instructor: Stone,Karla Rae
Description: Student may contact the instructor or department for information.

EDHD 5001 Learning, Cognition, and Assessment
3 credit(s); prereq MEd/initial licensure student or CLA music ed or preteaching major or instr consent ; psych course recommended; Credit will not be granted if credit has been received for: EPSY 3119;
Instructor: Swinburne Romine,Russell E.
Description: Student may contact the instructor or department for information.

EDHD 5003 Developmental and Individual Differences in Educational Contexts
A-F only, 2 credit(s); prereq Jr or sr or post-bac or MEd/initial licensure or CLA music ed or preteaching major or FOE or agriculture or kinesiology or instr consent ;
Instructor: Rodgerson,Richard W
Description: Overview of developmental and individual differences of children and adolescents in educational contexts; emphasis on a dynamic systems, evolutionary (selectionist), and ecological perspectives; development transitions in childhood and adolescence; interactions between the student, environment, and task; and accommodations and adaptations for students in special education.
Grading: 100% reports/papers.

EDHD 5004 Teaching Students With Special Needs in Inclusive Settings
A-F only, 2 credit(s); prereq Teacher preparation program in [CEHD or music education or agriculture education or DirecTrack] or instr consent ; licensure students must take this course for a grade;
Instructor: Seifert,PhD,Kathy
Description: Student may contact the instructor or department for information.

EDHD 5005 School and Society
A-F only, 2 credit(s); prereq Jr or sr or MEd/initial licensure student or CLA music ed major or preteaching major or instr consent ;
Instructor: Howell,Monica Ruth
Description: Student may contact the instructor or department for information.

EDHD 5005 School and Society
A-F only, 2 credit(s); prereq Jr or sr or MEd/initial licensure student or CLA music ed major or preteaching major or instr consent ;
Instructor: Opal,Christen Lynn
Description: Student may contact the instructor or department for information.

EDHD 5005 School and Society
A-F only, 2 credit(s); prereq Jr or sr or MEd/initial licensure
student or CLA music ed major or preteaching major or instr consent ;
Instructor: Erickson,Erik Kristian
Description: Student may contact the instructor or department for information.

EDHD 5005 School and Society
A-F only, 2 credit(s); prereq Jr or sr or MEd/initial licensure student or CLA music ed major or preteaching major or instr consent ;
Instructor: Deemerth,Peter
Description: Student may contact the instructor or department for information.

EDHD 5007 Technology for Teaching and Learning
A-F only, 1.5 credit(s); prereq [MEd/initial licensure or CLA music ed major or preteaching major or instr consent], basic computer skills;
Instructor: Scharber,Cassie Marie
Description: Student may contact the instructor or department for information.

EDHD 5007 Technology for Teaching and Learning
A-F only, 1.5 credit(s); prereq [MEd/initial licensure or CLA music ed major or preteaching major or instr consent], basic computer skills;
Instructor: Donna,Joel Dominic
Description: Student may contact the instructor or department for information.

EDHD 5009 Human Relations: Applied Skills for School and Society
A-F only, 1 credit(s); prereq MEd/init lic or CLA music ed or preteaching or instr consent;
Instructor: Burke,Caroline Anne
Description: Student may contact the instructor or department for information.

EDHD 5100 International Topics for Graduate Students: Global Talent Development in Brazil
1-7 credit(s), max credits 15, 3 completions allowed;
Instructor: Ardichvili,Alexandre A
Description: Student may contact the instructor or department for information.

EDPA 1301W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: PA 1961W; Meets CLE req of Writing Intensive;
Instructor: Duennes,Michael
Description: This 1000-level course introduces leadership using a personal leadership perspective and framework. Students taking this course will have the opportunity to examine their own views on leadership, examine aspects of identity and difference, learn about the differences between personal and positional leadership, and begin to explore concepts and skills relating to effective leadership, citizenship and positive change. Personal leadership topics are explored from the perspective of citizenship within a democracy, work, school, and your service experience at schools, community centers and volunteering.

EDPA 1301W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: PA 1961W; Meets CLE req of Writing Intensive;
Instructor: Anderson,Orkideh M.
Description: Student may contact the instructor or department for information.
EDPA 1301W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: PA 1961W; Meets CLE req of Writing Intensive;
Instructor: Zenk, Leslie Rose
Description: Student may contact the instructor or department for information.

EDPA 1301W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: PA 1961W; Meets CLE req of Writing Intensive;
Instructor: Peacock, Katie
Description: Student may contact the instructor or department for information.

EDPA 1301W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: PA 1961W; Meets CLE req of Writing Intensive;
Instructor: Knudson, Laura J
Description: This introductory level course presents leadership using a personal leadership perspective and framework. Students taking this course will have the opportunity to examine their own views on leadership, explore the differences between personal and positional leadership, study characteristics of effective leadership and learn about the importance of personal development.

EDPA 1301W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: PA 1961W; Meets CLE req of Writing Intensive;
Instructor: McFadden, Colin Hamilton
Description: Student may contact the instructor or department for information.

EDPA 1301W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: PA 1961W; Meets CLE req of Writing Intensive;
Instructor: Fredrickson, Brian Steven
Description: This introductory level course presents leadership using a personal leadership perspective and framework. Students taking this course will have the opportunity to examine their own views on leadership, explore the differences between personal and positional leadership, study characteristics of effective leadership and learn about the importance of personal development.

EDPA 1301W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: PA 1961W; Meets CLE req of Writing Intensive;
Instructor: Shultz, Joseph Brian
Description: This introductory level course presents leadership using a personal leadership perspective and framework. Students taking this course will have the opportunity to examine their own views on leadership, explore the differences between personal and positional leadership, study characteristics of effective leadership and learn about the importance of personal development.

EDPA 1301W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: PA 1961W; Meets CLE req of Writing Intensive;
Instructor: Watkins Soderlund, Mandi Mae
Description: This introductory level course presents leadership using a personal leadership perspective and framework. Students taking this course will have the opportunity to examine their own views on leadership, explore the differences between personal and positional leadership, study characteristics of effective leadership and learn about the importance of personal development.

EDPA 1301W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: PA 1961W; Meets CLE req of Writing Intensive;
Instructor: Fink, Alexander J
Description: This introductory level course presents leadership using a personal leadership perspective and framework. Students taking this course will have the opportunity to examine their own views on leadership, explore the differences between personal and positional leadership, study characteristics of effective leadership and learn about the importance of personal development.

EDPA 1301W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: PA 1961W; Meets CLE req of Writing Intensive;
Instructor: Hellstrom, David P
Description: This 1000 level course introduces leadership using a personal leadership perspectives and frameworks. Students taking this course will have the opportunity to examine their own views on leadership, explore the differences between personal and positional leadership, study characteristics of leaders within the University of Minnesota and learn about the importance of personal development.

EDPA 1301W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: PA 1961W; Meets CLE req of Writing Intensive;
Instructor: Johnson, Brandon William
Description: This introductory level course presents leadership using a personal leadership perspective and framework. Students taking this course will have the opportunity to examine their own views on leadership, explore the differences between personal and positional leadership, study characteristics of effective leadership and learn about the importance of personal development.

EDPA 3010 Special Topics for Undergraduates
1-3 credit(s), max credits 9, 9 completions allowed;
Instructor: STAFF
Description: Inquiry into educational policy and administration problems and issues. No special topic has yet been approved for Fall 2000.

EDPA 3302 Leadership, You, and Your Community
A-F only, 3 credit(s); prereq [1301W or PA 1961W], grade of at least C, [soph or at least 60 cr]; Credit will not be granted if credit has been received for: PA 3961;
Instructor: Ve Lure Roholt, Christine Elizabeth
Description: This course will examine leadership and leadership capacities within the context of social change and public work. Students taking this course will have the opportunity to examine their own views of leadership and social change, learn about leadership theory and core concepts of Public Achievement, and apply knowledge to practice utilizing the Public Achievement model. Particular attention is given to group leadership and the effectiveness of groups and organizations accomplishing change. There are a few aspects to the content of this course which make it unique when compared to traditional collegiate and leadership instruction: As a method of examining leadership capacities within a social change movement, this class will utilize...
the history, current status, and stories about the issue of poverty as a context. As the theme for the course, many portions of the class content and discussion will explore the issue of poverty. This method is meant as an example of public leadership happening within the intricacies of a social movement and issue. Another major content component of this course is the Public Achievement model. A little less than half of the assigned class days will be dedicated to working within smaller groups (encompassing about 1/3 of the class in each) on a Public Achievement project. For these projects, each of the instructors, in addition to a teaching assistant, will be assigned as a coach for one Public Achievement group. More information about Public Achievement is available in the subsequent pages of this syllabus.

Style: 10% Lecture, 5% Film/Video, 20% Discussion, 50% Small Group Activities, 10% Student Presentation, 5% Guest Speakers. The major portion of this class is the Public Achievement process.

Grading: 20% final exam, 20% reports/papers, 5% quizzes, 5% attendance, 10% journal, 35% in-class presentation, 5% class participation.

Exam Format: Final exam is a take-home written essay.

EDPA 3302 Leadership, You, and Your Community
A-F only, 3 credit(s); prereq [1301W or PA 1961W], grade of at least C, [soph or at least 60 cr]; Credit will not be granted if credit has been received for: PA 3961; Instructor: Asmundson, Aaron R

Description: This course will examine leadership and leadership capacities within the context of social change and public work. Students taking this course will have the opportunity to examine their own views of leadership and social change, learn about leadership theory and core concepts of Public Achievement, and apply knowledge to practice utilizing the Public Achievement model. Particular attention is given to group leadership and the effectiveness of groups and organizations accomplishing change. There are a few aspects to the content of this course which make it unique when compared to traditional collegiate and leadership instruction: As a method of examining leadership capacities within a social change movement, this class will utilize the timeline, history, current status, and stories of the HIV/AIDS pandemic as a context. As the theme for the course, many portions of the class content and discussion will explore the HIV/AIDS pandemic. This method is meant as an example of public leadership happening within the intricacies of a social movement and issue. Another major content component of this course is the Public Achievement model. A little less than half of the assigned class days will be dedicated to working within smaller groups (encompassing about 1/3 of the class in each) on a Public Achievement project. For these projects, the instructor—in addition to two teaching assistants?will be assigned as a coach for one Public Achievement group. More information about Public Achievement is available in the subsequent pages of this syllabus.

EDPA 3305 Learning About Leadership Through Film and Literature
3 credit(s);
Instructor: Seashore, Karen Rose

Description: "Uneasy lies the head that wears a crown? (Shakespeare, Henry IV, Part 2) Being a leader? whether a king, a school principal, or the chair of a student committee? creates opportunities and dilemmas for individuals. Being a follower in any organized settings also poses issues for individuals that seek to have an impact on their settings. As with many other subjects, the topic of leadership can be approached in many ways. This class will combine readings from leadership studies, literature, and film to examine a number of specific issues related to leadership and followership, including: ethical dilemmas, different styles of leadership and their consequences, the intersection of public and private in the course of exercising leadership, and the competing loyalties and pressures felt by leaders and followers. In addition, we will address fundamental questions about the nature and desirability of leadership.

Style: 20% Lecture, 20% Film/Video, 20% Discussion, 20%
EDPA 5048 Cross-Cultural Perspectives on Leadership
3 credit(s);
Instructor: Quast,Louis Neumann
Description: Student may contact the instructor or department for information.

EDPA 5056 Case Studies for Policy Research
A-F only, 3 credit(s);
Instructor: Fry,Gerald Walton
Description: This course, co-taught by Gerald W. Fry and R. Michael Paige, will introduce students to case study research. This research approach is highly flexible in the units of analysis that can be considered and the wide range of specific quantitative and qualitative research methods that can be applied. We will examine the different genres of case study research (e.g., historical, ethnographic, descriptive, evaluative) and the research methods that are appropriate to those genres. We will examine how case study research has been used in the social and behavioral sciences, with the focus on the field of Education. Students will read and critique case studies, and they will work in teams to conduct and present to the class a small-scale example of case study research. The goals of the course are to: 1. familiarize students with case study research genres, units of analysis, and methods. 2. promote students’ skills in reading and critiquing case study research. 3. introduce students to the literature on case study research, and, 4. provide students the opportunity to practice conducting case study research. The course text will be Sharan Merriam’s book on case study research and a packet of reading selected by the course instructors. The course will be web enhanced but the URL is not yet available.

Style: 40% Lecture, 30% Discussion. field research
Grading: 60% reports/papers, 40% other evaluation. team project
Exam Format: Essay

EDPA 5080 Special Topics: Educational Policy and Administration
3 credit(s), max credits 24, 24 completions allowed;
Instructor: Lonquist PhD,Peg
Description: Student may contact the instructor or department for information.

EDPA 5080 Special Topics: Educational Policy and Administration
3 credit(s), max credits 24, 24 completions allowed;
Instructor: Dejaeghere,Joan Geralyn
Description: Student may contact the instructor or department for information.

EDPA 5080 Special Topics: Educational Policy and Administration
3 credit(s), max credits 24, 24 completions allowed;
Instructor: Osburn Jr,Robert H
Description: International development influences and is influenced by religion, both institutionally and ideologically. Explore development theory, religion and development policy, and the influence of religious cultures on economic, political and educational development, with particular attention to women, human rights, secularization, and the role of religious NGOs.
Style: 30% Lecture, 3% Film/Video, 37% Discussion, 10% Student Presentation, 20% Guest Speakers.

EDPA 5080 Special Topics: Educational Policy and Administration
1 credit(s), max credits 24, 24 completions allowed;
Instructor: Harkins,Arthur M
Description: In an era of accelerating change, the careers and professions that students study for today may no longer exist when they complete schooling. What are the potential futures of work? How do we as individuals ?and human capital development organizations?prepare for work contexts that may be radically different than exist today? Participants in the workshop will develop a library of opportunity-focused Leapfrog actions that consider these questions.

EDPA 5080 Special Topics: Educational Policy and Administration
1 credit(s), max credits 24, 24 completions allowed;
Instructor: Harkins,Arthur M
Description: Have you noticed how Web 2.0 and related technologies are driving changes in society, at work, and in the classroom? Ever wondered what’s next and where you fit in? This workshop focuses on the emerging qualities of innovation workers in the 21st century, the impact of social technologies and media (crowdsourcing, etc.), the changes required of education systems, and ?what’s next? as we build Society 3.0. Explore a framework for navigating our rapidly changing society, and plot a pathway for maximizing and leading with your creativity and innovation capital.

EDPA 5080 Special Topics: Educational Policy and Administration
1 credit(s), max credits 24, 24 completions allowed;
Instructor: Harkins,Arthur M
Description: Illnesses, technology changes, and economic factors may have significant effects on attendance in formal education systems within the near future. This course examines projected solutions to these problems.

EDPA 5080 Special Topics: Educational Policy and Administration
1 credit(s), max credits 24, 24 completions allowed;
Instructor: Weerts,David J
Description: External Relations and Higher Education This special topics course is designed to introduce students to the study and practice of external relations in higher education. During this nine-week session, students and instructors will examine how colleges and universities build strategic alliances with external partners to the benefit of institutions and the constituencies they serve. The primary stakeholders of interest in this course include state and federal policy makers, corporate partners, community partners, alumni, donors, and foundations. Through case studies, guest speakers, interactive exercises, and large and small group discussions, the course will address topics of institutional branding and public relations, town-gown relations, crisis management, institutional advancement, alumni relations, and federal and state lobbying. Assigned readings draw on literature from organizational theory, public relations, political science, communication theory and institutional advancement research and practice. Upon completing this course, students will be able to: ? Articulate various philosophies and theoretical frameworks that guide external relations research and practice, and how these conceptual pieces inform the development of external relations programs ?Identify and apply best practices of external relations and relate these practices to unique institutional missions and contexts. ?Develop strategies...
EDPA 5087 Seminar: Educational Policy and Administration
1-3 credit(s), max credits 24, 24 completions allowed;
Instructor: STAFF
Description: Shared responsibility of students/instructor in presentation of topics.

EDPA 5095 Problems: Educational Policy and Administration
1-3 credit(s), max credits 24, 24 completions allowed;
Instructor: STAFF
Description: Course or independent study on specific topic within department program emphasis.

EDPA 5096 Internship: Educational Policy and Administration
1-9 credit(s), max credits 24, 24 completions allowed;
Instructor: STAFF
Description: Internship in elementary, secondary, general, or postsecondary administration, or other approved field-related setting.

EDPA 5101 International Education and Development
3 credit(s);
Instructor: Vavraus, Frances
Description: Introduction to international development education; history and theories of international development; debates over the role of education and international development institutions in the economic, political, and sociocultural development of nations; examination of current topics and critical issues in the field.

EDPA 5103 Comparative Education
3 credit(s);
Instructor: Zhang, Yongling Jenny
Description: Student may contact the instructor or department for information.

EDPA 5104 Strategies for International Development of Education Systems
A-F only, 3 credit(s); prereq Grad student;
Instructor: Johnstone, Christopher J
Description: Student may contact the instructor or department for information.

EDPA 5141 Global Youth Policy and Leadership: Comparative Youth Policy and Leadership
A-F only, 3 credit(s);
Instructor: Schneider, Byron J
Description: Comparative approach to study of public responses at local level to youth development and leadership issues. Focus on social systems (such as education, health, employment and recreation), role of individuals, communities, governments and international organizations which are directed to provide programs/services to young persons.

EDPA 5144 Cultural Models, Simulations, and Games
3 credit(s); prereq Upper div or grad student;
Instructor: Harkins, Arthur M
Description: Student may contact the instructor or department for information.

EDPA 5321 The Principal as Leader of High-Performing Schools
3 credit(s);
Instructor: Massey, Steven Duane
Description: Student may contact the instructor or department for information.

EDPA 5322 Leaders in the Superintendency and Central Office
3 credit(s);
Instructor: Brunner, C Cyss
Description: Role and responsibility of the superintendent in school district. Emphasizes real life experiences, leadership potential as (CEO). Purposes, power, politics, and practices of position. Interplay of internal school forces, external community forces analyzed in multiple contexts. Manifestations of leadership in public, high-profile appointment.

EDPA 5341 The American Middle School
3 credit(s);
Instructor: Schmidt, Noel Nevin
Description: This course will focus on the uniqueness of the early adolescent. Special attention will be spent on brain development and how this affects their social and emotional states. We will discuss practical suggestions on how to effectively teach them and also what tactics to avoid. For educators working with middle-level students.

EDPA 5344 School Law
3 credit(s);
Instructor: Forbes, Paula Gail
Description: Student may contact the instructor or department for information.

EDPA 5346 Politics of Education
A-F only, 3 credit(s); prereq postbac, MEd, or grad student;
Instructor: Alexander, Nicola
Description: Political dimensions of policy formulation/implementation in education. Use of power/influence in shaping educational policies and in resolving conflicts over educational issues. Analysis of consequences/cross-impacts.

EDPA 5361 Project in Teacher Leadership
S-N only, 3 credit(s), max credits 6, 1 completion allowed;
prereq MEd student in Teacher Leadership Program; Credit will not be granted if credit has been received for: CI 5178;
Instructor: Kalnin, Julie
Description: Student may contact the instructor or department for information.

EDPA 5364 Context and Practice of Educational Leadership
A-F only, 3 credit(s);
Instructor: Sommers PhD, William A.
Description: Student may contact the instructor or department for information.

EDPA 5372 Youth in Modern Society
3 credit(s);
Instructor: Schneider, X Byron J
Description: Youth in advanced societies and as a social entity; functions and roles in industrial society, family, education, politics and government, economy and work, welfare and religion; organizations, social movements, and subcultures; empirical research and cross-cultural perspectives.

EDPA 5374 Leadership for Professional Development
4 credit(s); prereq Postbaccaleaureate, at least 3 yrs teaching experience;
Instructor: York-Barr, Jennifer
Description: Designing, implementing, evaluating staff development in PK-12 settings. Research-based standards for effective staff development. Need for embedded time for collaborative learning, evaluating staff/student outcomes.

EDPA 5386 Leadership Portfolio Seminar
S-N only, 1 credit(s); prereq 5385 or Concurrent registration is required (or allowed) in 5385;
Instructor: Latimer, Sally Winifred
Description: Student may contact the instructor or department for information.

EDPA 5388 Leadership for Master(ful) Scheduling
2 credit(s); prereq 5387;
Instructor: Dewey PhD, D. Richard
Description: We will examine the work of high-performing Professional Learning Communities and the implications for moving from building a master schedule to Leadership for the Master(ful) Scheduling? of time, space, motion and people. We
will consider a variety of Master(ful) Scheduling? strategies and engage in hands-on work with Infinite Campus software and scheduling-building logic, while focusing on the six pillars of Master(ful) Scheduling?

EDPA 5391 Special Education Law for Leaders
1 credit(s); prereq Designed for students working on licensure in PK-12 administration;
Instructor: Law, David W
Description: Student may contact the instructor or department for information.

EDPA 5396 Field Experience in PK-12 Administration:
Authentic Practice in Leadership
S-N only, 3 credit(s), max credits 12, 4 completions allowed; prereq instr consent;
Instructor: Dragseth, Kenneth Allen
Description: This course provides practical field experience for aspiring school administrators who are seeking Minnesota licensure as PK-12 Principal, District Superintendent, Director of Special Education, or Director of Community Education. It features practical experience in the appropriate field under the guidance of a practicing school administrator and the University instructor. Each planned field experience (internship) is designed by the mentoring administrator, the university instructor, and the administrative intern based upon the State of Minnesota required competencies for each administrative license and the student's preassessment of competencies. Four required plus four elective administrative projects are required of each class member.
Grading: S/N

EDPA 5501 Principles and Methods of Evaluation
3 credit(s); Credit will not be granted if credit has been received for: EPSY 5243;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

EDPA 5521 Cost and Economic Analysis in Educational Evaluation
3 credit(s);
Instructor: STAFF
Description: Use and application of cost-effectiveness, cost-benefit, cost-utility, and cost-feasibility in evaluation of educational problems and programs.

EDPA 5701 U.S. Higher Education
3 credit(s);
Instructor: Hendel, Darwin Dale
Description: This course is an introductory survey of U.S. higher education. It addresses both the historical development of, and contemporary issues in, higher education in the United States. The content of the course is organized around the higher education topics in historical and contemporary contexts simultaneously. The outcomes sought for students taking the course include the following: ? Basic knowledge of the system of higher education in the United States; ? Understanding of historical events, including the political, psychological and economic factors that shaped higher education and continues to affect institutions today; ? Sufficient background for subsequent in-depth study in the field of higher education in the United States in the context of changes in higher education across the world; and ? A critical perspective on the higher education literature.
Style: 30% Lecture, 8% Film/Video, 13% Discussion, 15% Small Group Activities, 8% Student Presentation, 3% Field Trips, 8% Guest Speakers, 15% Web Based.
Grading: 60% reports/papers, 10% journal, 5% reflection paper, 10% in-class presentation, 15% class participation.

EDPA 5721 Race and Ethnicity in Higher Education
3 credit(s);
Instructor: Gupton, Jarrett Temple
Description: Student may contact the instructor or department for information.

EDPA 8011 Doctoral Research Seminar I
S-N only, 1 credit(s); prereq EdPA doctoral student;
Instructor: Hendel, Darwin Dale
Description: Student may contact the instructor or department for information.

EDPA 8015 Research Design and Educational Policy
A-F only, 3 credit(s); prereq 8011, EdPA PhD student;
Instructor: Yeh, Stuart S
Description: This is a 3 credit introductory course in research design and educational policy is required for, and limited to, Educational Policy and Administration Ph.D. students. The course covers the logic of research design, from research questions and audience considerations to the selection of a suitable design for collecting and analyzing quantitative, qualitative, and mixed-method data. The course provides a framework for understanding how specialized methodology, statistics and content-area courses, including courses in other units of the University, inform decisions related to research design. Quantitative and qualitative research methods are introduced, with a focus on issues in selecting appropriate methods. It is recommended that students pursue additional coursework in either quantitative methods, qualitative methods, or both before selecting methods for the dissertation. Each class session will cover key topics related to research design, as well as the strengths, weaknesses, and uses of particular research designs. Students will learn skills in applying key concepts to case discussions of the major research designs, based on examples that illustrate relationships among the literature review, research questions, research design and methods, data analysis and conclusions. Core concepts will be introduced and applied through case discussions. These concepts will be revisited and elaborated throughout the course as students build sophistication regarding criteria and standards for judging the adequacy of a given research design as it is used to answer specific research questions. Instructional strategies include lecture, small group cooperative activities and discussions, whole group discussions, student presentations and papers.
Grading: Student grades will be based on two (2) short research presentations (40%), the Final Research Proposal (30%), the Final Research Presentation (15%), and class participation (15%).

EDPA 8087 Seminar: Educational Policy and Administration
1-3 credit(s), max credits 24, 24 completions allowed;
Instructor: Vavrus, Frances
Description: Student may contact the instructor or department for information.

EDPA 8101 International Education and Development
A-F only, 3 credit(s); prereq Doctoral student or instr consent;
Instructor: Dragseth, Joan Geralyn
Description: Student may contact the instructor or department for information.

EDPA 8104 Innovative Systems Thinking in Education and Culture
3 credit(s);
Instructor: Harkins, Arthur M
Description: Student may contact the instructor or department for information.

EDPA 8121 Doctoral Seminar: Comparative and International Development Education
S-N only, 1-6 credit(s), max credits 6, 4 completions allowed; prereq EdPA PhD candidate;
Instructor: Magnusson, Deanne L
Description: Student may contact the instructor or department for information.

EDPA 8121 Doctoral Seminar: Comparative and International Development Education
S-N only, 1-6 credit(s), max credits 6, 4 completions allowed; prereq EdPA PhD candidate;
Instructor: Dragseth, Joan Geralyn

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Description: Student may contact the instructor or department for information.

EDPA 8302 Educational Policy Perspectives
3 credit(s);
Instructor: Alexander, Nicola
Description: EdPA 8302 is a required course in the PhD graduate program of Educational Administration. It focuses on the principles of policy analysis and introduces students to the techniques used systematically to analyze and resolve policy issues in the education arena. The focus is on ex ante policy analysis, so the starting point will be defining a problem. The rudimentary principles of policy analysis are reviewed, but we will also spend much of the time critiquing the literature in the field and applying the principles learned. The course aims to develop an understanding of the underlying structure of policy problems and to provide students with the appropriate guidelines of how sound analyses may be made. By the end of the course we will cover: major ethical worldviews that underlie policy formulation and analyses; policy analysis as problem solving and method; fundamental principles of policy analysis; components of a well-structured policy argument; key steps underlying the policy analysis process; techniques used to conduct policy analysis; critical issues in educational administration for all program areas (Comparative and international education; educational administration (K-12); evaluation; and higher education).

EDPA 8595 Evaluation Problems
1-6 credit(s), max credits 24, 24 completions allowed; prereq [5501 or EPSY 5243], instr consent; Credit will not be granted if credit has been received for: EPSY 8295;
Instructor: King, Jean A.
Description: Student may contact the instructor or department for information.

EDPA 8596 Evaluation Internship
1-9 credit(s), max credits 24, 24 completions allowed; prereq [5501 or EPSY 5243], instr consent; Credit will not be granted if credit has been received for: EPSY 8296;
Instructor: Krueger, Richard A
Description: Student may contact the instructor or department for information.

EDPA 8702 Administration and Leadership in Higher Education
3 credit(s); prereq 5001, 5701;
Instructor: Weerts, David J
Description: Student may contact the instructor or department for information.

EPSY 1005 Freshman Seminar: Chess and 21st Century Skills
3 credit(s), max credits 6; prereq Fr;
Instructor: Bart, William M
Description: Examination of the basic components of chess, computer-based chess, how chess players think, including visual-spatial thinking and critical thinking, the psychology of critical thinking and other 21st Century reasoning skills, and research on chess cognition.
Style: See class syllabus
Grading: See syllabus
Exam Format: See syllabus

EPSY 3119 Learning, Cognition, and Assessment
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: EPSY 5303, HD 5001;
Instructor: Swinburne Romine, Russell E.
Description: Student may contact the instructor or department for information.

EPSY 3132 Psychology of Multiculturalism in Education
A-F only, 3 credit(s); Meets CLE req of Diversity and Soc

Justice US;
Instructor: Hansen, Annie
Description: The PSYCHOLOGY OF MULTICULTURALISM IN EDUCATION examines contemporary and historical perspectives on issues of social and cultural diversity in the United States, with special emphasis on issues of race, ethnicity, gender, social class, age, disability, sexual orientation, and religious diversity. Processes of oppression, stereotyping, prejudice and social perception biases and their relationships to education are the primary topics of the course. This course will consist of discussion, lecture, film, and structured exercise components. In addition, students will complete reflective writing exercises to apply course concepts to real-world experiences. Grading is based on class participation (20%), reflective writing assignments (20%), a cooperative group project (20%), and two exams (20% each). Students will have the opportunity for small group and whole class discussion throughout the course.
Style: 40% Lecture, 10% Film/Video, 25% Discussion, 25% Small Group Activities.
Grading: 20% mid exam, 20% final exam, 20% special projects, 20% reflection paper, 20% in-class presentation.
Exam Format: Exams are a combination of multiple choice and short-answer. The final exam includes a cooperative component as well as an individual component. Study guides are provided.

EPSY 3133 Practicum: Service Learning, Psychology of Multiculturalism in Education
1-3 credit(s), max credits 3, 3 completions allowed; prereq [3132 or Concurrent registration is required (or allowed) in 3132), instr consent, enrollment in APECS minor;
Instructor: delMas, Robert Claude
Description: Student may contact the instructor or department for information.

EPSY 3264 Basic and Applied Statistics
3 credit(s); Credit will not be granted if credit has been received for: EPSY 5231; Meets CLE req of Mathematical Thinking;
Instructor: Ziefli, PhD, Andrew S
Description: This course is designed to provide an overview of introductory statistics. This class is intended for undergraduate students who have completed a high school algebra course, but have not previously studied statistics. The topics to be covered in this course include sampling methods, experimental design, data exploration (e.g., using graphical and numerical summaries), data modeling and simulation, normal distributions, sampling distributions, methods of statistical inference (estimation and testing), and correlation. Upon completion of this introductory course, students should be able to: (1) think critically about statistics used in magazines, newspapers, and journal articles, (2) reason about data and (3) apply the knowledge gained in the course to begin to answer simple research questions using empirical data. Students are expected to keep up with all required readings and assignments, as well as to be active participants in the course. Active participation includes asking and answering questions in both large and small group discussions. It is also expected that all students have a basic understanding of computer use (e.g., e-mail, web browsers, word-processing software, etc.).
Style: 10% Lecture, 30% Discussion. Independent and small-group learning activities
Grading: 12% final exam, 13% special projects, 17% quizzes, 35% written homework, 23% additional semester exams.
Exam Format: Short-Answer

EPSY 3264 Basic and Applied Statistics
3 credit(s); Credit will not be granted if credit has been received for: EPSY 5231; Meets CLE req of Mathematical
Thinking;  Instructor: Bjornsdottir, Audbjorg  Description: Student may contact the instructor or department for information.

EPSY 3264 Basic and Applied Statistics
3 credit(s); Credit will not be granted if credit has been received for: EPSY 5231; Meets CLE req of Mathematical Thinking;
Instructor: Chung, Chu-Ting  Description: Student may contact the instructor or department for information.

EPSY 3264 Basic and Applied Statistics
3 credit(s); Credit will not be granted if credit has been received for: EPSY 5231; Meets CLE req of Mathematical Thinking;
Instructor: Cabrera, Julio  Description: Student may contact the instructor or department for information.

EPSY 3301 Introduction to Educational Psychology
OPT NoAud, 3 credit(s); Meets CLE req of Social Sciences;  Instructor: Varma, Sashank  Description: NOTE: This course satisfies the Liberal Education Requirement for Social Sciences. This course is an introduction to the theories, data, and methods that compose Educational Psychology. In this regard, it serves as a foundation for future coursework in education and psychology. The first third of the course will review those aspects of developmental psychology that are foundational for education. The second third will consider how cognitive psychology informs questions of learning, memory, knowledge, and reasoning. With this background in place, the final third of the course will focus on the classroom: on instruction, motivation, assessment, and individual differences. The class concludes with lectures on how neuroscience informs education. Knowledge is gained not just by reading and listening, but also by “doing.” With this in mind, students will construct much of the knowledge they take away from this class. For example, in one assignment, students will participate in a classic experiment. They will analyze and write-up their data, and in this way gain a deep understanding of the empirical support for proven educational strategies. Through this and similar assignments and projects, students will gain a deep understanding of Educational Psychology. TOPICS Expertise; Cognitive Development; Personal, Sexual, Social, and Moral Development; Group Differences; Behavioral Learning; Cognitive Learning; Problem Solving, Reasoning, and Transfer; Motivation; Instruction; Intelligence; Standardized Testing & Assessment; Neuroscience and Education. For questions or more information, please contact Dr. Sashank Varma (sashank@umn.edu).  Style: 75% Lecture, 25% Discussion.  Grading: 15% mid exam, 15% final exam, 35% reports/papers, 10% written homework, 15% additional semester exams, 5% attendance, 5% class participation. 10% Class participation; 10% Small assignments; 17.5% Child Observation project; 15% Lesson Analysis project; 17.5% Exam 1; 15% Exam 2; 15% Exam 3.  Exam Format: The exams are non-cumulative. The exam questions are “not” fill-in-the-blank or multiple-choice. Rather, they require short answers ranging from a sentence to a paragraph.

EPSY 3302 Introduction to Communication Skills for Educational and Community Settings
OPT No Aud, 3 credit(s);  Instructor: Burke, Caroline Anne  Description: This course is designed to develop communication skills for persons who will work with diverse individuals or groups in educational and community settings. The emphasis is on practice in the use of communication skills, learning about communication concepts, and development of self-reflectivity regarding one’s communication style. The major objective of this course is to enable persons to become more effective communicators with individuals and groups in educational and community settings. It is based on a premise that communication is a skill that can be learned. Therefore, the course will emphasize teaching and practicing basic skills shown to be critical in working with people in human service professions.  Style: 30% Lecture, 40% Discussion, 30% Small Group Activities.

EPSY 5101 Intelligence and Creativity
A-F only, 3 credit(s);  Instructor: Bart, William M  Description: This course is intended to serve students (graduate, undergraduate, and adult special) interested in intelligence and creativity. The course will feature an examination of theories of intelligence and creativity and perspectives on the assessment and development of intelligence and creativity. Implications for educational practices, psychological research, and the professions and disciplines will also be studied. Attention will be provided to the role of interventions intended to enhance intellectual abilities and creativity and to relevant brain research on creativity and intelligence. The primary readings for the course will be one contemporary paperback text on creativity and one contemporary paperback text on human intelligence. This course will emphasize writing in the evaluation of student performance. Students will work in small groups to complete approximately 7 group discussion short answer essay questions. Students will learn early in the course the essay questions to be used in the course. Each student will complete a critical review of one scholarly article or book chapter, with either the article or the text chapter to be selected by the student, and one final paper. The course will be “Web Enhanced.”  Style: 30% Discussion, 20% Small Group Activities, 50% Web Based, presentations; web enhanced course (URL not yet available)
Grading: 25% mid exam, 20% final exam, 42% reports/papers, 10% special projects, 3% other evaluation.  Exam Format: short essay

EPSY 5114 Psychology of Student Learning
A-F only, 3 credit(s);  Instructor: Pellegrini, Anthony D  Description: Student may contact the instructor or department for information.

EPSY 5115 Psychology of Adult Learning and Instruction
3 credit(s);  Instructor: Tennyson, Robert D  Description:

EPSY 5135 Human Relations Workshop
4 credit(s);  Instructor: Johnson, David W  Description: This is a semester-long online course with an initial optional on-campus meeting TBA. Contact the instructor if you cannot attend. This course is approved to meet the MN Department of Education requirement for licensure. - Internet-delivered. 5 seat(s) reserved for non-PSEO, non-admitted student

EPSY 5153 Social Development in PreK to Secondary Schools
A-F only, 3 credit(s); prereq Course in psychology;  Instructor: Pellegrini, Anthony D  Description: The course will address, using lectures and student discussion and presentations, the social development of infants, children, adolescents, and adults in educational settings, ranging from infant day care through secondary education. Topics include: What is development, Attachment at home and school, peer relations and school success, play, aggression/bullying, socialization in families and schools, sex differences in social behavior and school orientation, moral development, and methods in studying social development.  Style: See syllabus for information
Grading: See syllabus
Exam Format: See syllabus

EPSY 5200 Special Topics: Psychological Foundations: Motivation in Education

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EPSY 5216 Introduction to Research in Educational Psychology and Human Development

EPSY 5221 Principles of Educational and Psychological Measurement
4 credit(s); prereq 5261 or equiv; Instructor: McGuire, Leah Walker Description: Student may contact the instructor or department for information.

EPSY 5231 Introductory Statistics and Measurement in Education
4 credit(s); Credit will not be granted if credit has been received for: EPSY 5264; Instructor: Davison, Mark L Description: Conceptual outline/topics: Statistics tools: Descriptive Measures of center (or Central Tendency), variability and correlation; methods of graphing and representing univariate and bivariate data; basic tests and inferential methods: t-test, confidence intervals, chi-square, simple regression; ideas of probability. Measurement topics: Types of data and measurement scales; reliability and validity; interpreting test scores and derived scores. Application of statistics and measurement in research: Read, interpret, design and critique research studies; informal ideas of power and sample size; student projects: collect data, analyze, interpret and report results. Computing: Awareness of and literacy regarding statistics packages and their output. Style: 70% Lecture, 10% Discussion, 20% Laboratory. Grading: 33% mid exam, 33% final exam, 33% reports/papers. Exam Format: multiple choice, short answer, essay, problems

EPSY 5243 Principles and Methods of Evaluation
3 credit(s); Credit will not be granted if credit has been received for: EDPA 5501; Instructor: STAFF Description: Introduction to program evaluation. Planning an evaluation study, collecting and analyzing information, reporting results; evaluation strategies; overview of the field of program evaluation.

EPSY 5247 Qualitative Methods in Educational Psychology
3 credit(s); prereq Grad student; Instructor: Lawrence, Frances P Description: Student may contact the instructor or department for information.

EPSY 5261 Introductory Statistical Methods
3 credit(s); Credit will not be granted if credit has been received for: EPSY 5231; Instructor: Everson, Michelle G Description: This course is designed to provide an overview of introductory statistics. The topics to be covered in this course include graphing techniques, measures of center and spread, normal distributions, correlation, simple linear regression, sampling methods, experimental design, sampling distributions, and methods of statistical estimation and inference. Upon completion of this introductory course, students should be able to: (1) think critically about statistics used in popular magazines, newspapers, and journal articles, (2) apply the knowledge gained in the course to analyze simple statistics used in research, and (3) design a research study, use a statistical software package to analyze the data generated from this research study, and appropriately report the conclusions of this research study. Because this version will be conducted entirely online, it is important for all students to keep up with required readings and assignments. Students are also expected to be active participants in this course. Active participation includes asking and answering questions in assigned discussion groups, posting responses to assignments and discussion questions in discussion groups, and responding to the messages posted by other members of the class. Students will also be expected to use SPSS. A student-version of SPSS will be sold with the textbook, but this student version runs on PCs, not on Macs. Any student who uses a Mac may need to complete SPSS work at a computer lab on campus. Contact the instructor before purchasing required materials at the bookstore for more options. Style: 100% Web Based. Class involves a lot of discussion/small-group activities and independent learning activities. Grading: 18% final exam, 4% reports/papers, 36% special projects, 27% quizzes, 15% written homework. Special projects include a class project and several small-group discussion assignments. Exam Format: mostly short-answer questions

EPSY 5261 Introductory Statistical Methods
3 credit(s); Credit will not be granted if credit has been received for: EPSY 5231; Instructor: Park, Jiyoon Description: Student may contact the instructor or department for information.

EPSY 5262 Intermediate Statistical Methods
3 credit(s); prereq 3264 or 5261 or equiv; Instructor: Everson, Michelle G Description: This course continues where EPSY 5261 (Introductory Statistical Methods) ends. Together, these two courses provide an alternative to the sequence EPSY 8261-8262. It is assumed that students who are registered in EPSY 5262 have successfully completed EPSY 5261 or its equivalent. By the end of the course, students should be able to: (1) understand the basic ideas and types of experimental design and analysis of variance (ANOVA), (2) run and interpret analyses involving real data using SPSS statistical software, (3) decompose data based on different models, applying algebraic notation, (4) check assumptions for models and select appropriate models for data, and (5) complete an independent project where they design an experiment, gather data, analyze and interpret the data, and write up the results in a paper. The course is conducted entirely online and students who take this course will need access to SPSS software (beyond the student version used in EPSY 5261). Style: 100% Web Based. A large component of the course is discussion/small-group assignments and independent learning activities. Grading: 19% final exam, 38% special projects, 28% quizzes, 15% written homework. Special projects consists of a class project and several group discussion assignments. Exam Format: Mostly short answer questions

EPSY 5401 Counseling Procedures
3 credit(s); prereq Upper div student; Instructor: Turner, Sherri L Description: This course is designed as an introduction to the theory and practice of counseling. It is intended for non-majors who may use counseling skills in a professional capacity or for those who may be considering a career in counseling. In this course you will become acquainted with counseling theory, learn basic counseling skills, gain understanding of cross-cultural and
multicultural counseling, and learn strategies for working with crisis victims. Instructional methods will include lecture, group interaction, and practice. This course will be web enhanced but the URL is not yet available.

**Style:** 25% Lecture, 65% Discussion, 10% Small Group Activities. Small group work

**Grading:** 65% reports/papers, 20% special projects, 15% class participation.

**EPSY 5415 Child and Adolescent Development and Counseling**
A-F only, 4 credit(s); prereq Grad student or MEd student or K-12 [counseling endorsement or licensure] student;
Instructor: Wahl,Kay Herling

**Description:** Student may contact the instructor or department for information.

**EPSY 5461 Cross-Cultural Counseling**
A-F only, 3 credit(s);
Instructor: Bierra,Jim

**Description:** Student may contact the instructor or department for information.

**EPSY 5609 Family-centered Services**
A-F only, 2 credit(s);
Instructor: Johnson,LeAnne Denise

**Description:** Student may contact the instructor or department for information.

**EPSY 5612 Understanding of Academic Disabilities**
A-F only, 3 credit(s);
Instructor: Seifert,PhD,Kathy

**Description:** Student may contact the instructor or department for information.

**EPSY 5613 Foundations of Special Education I**
A-F only, 3 credit(s); prereq Child development course, 5601 or equiv;
Instructor: Fautsch-Patridge, Terri

**Description:** Student may contact the instructor or department for information.

**EPSY 5613 Foundations of Special Education I**
A-F only, 3 credit(s); prereq Child development course, 5601 or equiv;
Instructor: Wing, Brad

**Description:** Student may contact the instructor or department for information.

**EPSY 5616 Behavior Analysis and Classroom Management**
3 credit(s);
Instructor: Fautsch-Patridge, Terri

**Description:** Student may contact the instructor or department for information.

**EPSY 5616 Behavior Analysis and Classroom Management**
3 credit(s);
Instructor: McComas, Jennifer

**Description:** Student may contact the instructor or department for information.

**EPSY 5624 Biomedical and Physical Aspects of Developmental Disabilities**
A-F only, 2 credit(s);
Instructor: Azar, Judi Larson

**Description:** Student may contact the instructor or department for information.

**EPSY 5625 Education of Infants, Toddlers, and Preschool Children with Disabilities: Introduction**
A-F only, 2 credit(s);
Instructor: Johnson, LeAnne Denise

**Description:** Student may contact the instructor or department for information.

**EPSY 5636 Sensory Impairments of Learners With Intellectual Disabilities**
2 credit(s); prereq 5613, 5614;
Instructor: Hupp, Susan Candis

**Description:** This course is designed to address characteristics and learning needs of students with developmental disabilities who also have visual and auditory disabilities. We explore the nature of visual and auditory disabilities; the design of instructional programs to remediate or accommodate disabilities, including use of prosthetic devices; strategies to evaluate environments as they affect student performance, both school and nonschool, inside and outside; and related areas of performance affected by sensory impairments, such as communication. The course includes a project wherein students plan a method to evaluate a community-based environment for sensory demands, implement the evaluation, and share their findings with the class, in partnership with students in EPSY 5624.

**EPSY 5641 Foundations of Education for Individuals Who Are Deaf/Hard of Hearing**
3 credit(s);
Instructor: Arnoldi, Kathleen A

**Description:** Student may contact the instructor or department for information.

**EPSY 5644 Language Development and Programming for Deaf/Hard of Hearing Children**
3 credit(s);
Instructor: Rose, Susan

**Description:** Student may contact the instructor or department for information.

**EPSY 5647 Aural and Speech Programming for Persons Who Are Deaf/Hard of Hearing**
3 credit(s);
Instructor: Paulson, Anna Regas

**Description:** Student may contact the instructor or department for information.

**EPSY 5655 Social and Interpersonal Characteristics of Students with Disabilities**
A-F only, 3 credit(s);
Instructor: STAFF

**Description:** The focus of this course is on the critical analysis of conceptual and practical issues regarding special education and students with emotional and behavioral disorders.

**Style:** 30% Lecture, 20% Discussion. Small group activities

**Grading:** 50% reports/papers, 30% quizzes, 5% in-class presentation, 15% class participation.

**EPSY 5661 Introduction to Autism Spectrum Disorder**
A-F only, 3 credit(s);
Instructor: Reichle, Joe E

**Description:** Student may contact the instructor or department for information.

**EPSY 5702 Practicum in Autism Spectrum Disorder**
A-F only, 3 credit(s); prereq 5616, 5661, 5609, one of [5622 or 5644 or SLHS 5606], enrolled in Autism Spectrum Disorder certificate program, instr consent;
Instructor: Reichle, Joe E

**Description:** Student may contact the instructor or department for information.

**EPSY 5703 Practicum in Applied Behavior Analysis**
A-F only, 3 credit(s); prereq 5616, 5657, Psy 4011, Applied Behavior Analysis Certificate student, instr consent;
Instructor: McComas, Jennifer

**Description:** Student may contact the instructor or department for information.

**EPSY 5751 Student Teaching: Deaf and Hard of Hearing**
1-6 credit(s), max credits 10, 10 completions allowed; prereq instr consent;
Instructor: Paulson, Anna Regas

**Description:** Student may contact the instructor or department for information.

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EPSY 5752 Student Teaching: Learning Disabilities
S-N only, 1-6 credit(s), max credits 10, 10 completions allowed; prereq instr consent; Instructor: Seifert Ph.D. Kathy
Description: A higher level of understanding of specific learning disabilities will be the focus of this course. The transfer of theoretical knowledge to practical application learned throughout the students' program will be examined. Understanding of the role of the learning strategies specialist in resource and inclusive settings for students of elementary and secondary age is essential. Student teaching provides an opportunity to demonstrate competencies in teaching students with developmental disabilities that are outlined by the Minnesota Department of Education Board of Teaching and the University of Minnesota as requirements for the teaching license.

EPSY 5754 Student Teaching: Social and Emotional Disabilities
A-F only, 1-6 credit(s), max credits 8, 8 completions allowed; prereq Completion of licensure courses for social and emotional disorders, instr consent; Instructor: Kelley Mary Beth
Description: Student may contact the instructor or department for information.

EPSY 5755 Student Teaching: Developmental Disabilities, Mild/Moderate
A-F only, 1-6 credit(s), max credits 6; prereq Completion of all licensure coursework, instr consent;
Instructor: Seifert Ph.D. Kathy
Description: The purpose of this two-semester sequence of Developmental Disabilities student teaching experiences is to provide student teachers with support and opportunities to demonstrate the following competencies from the MN Rules for Special Education: Developmental Disabilities. Student teaching provides an opportunity to demonstrate competencies in teaching students with developmental disabilities that are outlined by the Minnesota Department of Education Board of Teaching and the University of Minnesota as requirements for the teaching license.

EPSY 5756 Student Teaching: Developmental Disabilities, Moderate/Severe
A-F only, 1-6 credit(s), max credits 6; prereq Completion of all licensure coursework, instr consent;
Instructor: Seifert Ph.D. Kathy
Description: The purpose of this two-semester sequence of Developmental Disabilities student teaching experiences is to provide student teachers with support and opportunities to demonstrate the following competencies from the MN Rules for Special Education: Developmental Disabilities. Student teaching provides an opportunity to demonstrate competencies in teaching students with developmental disabilities that are outlined by the Minnesota Department of Education Board of Teaching and the University of Minnesota as requirements for the teaching license.

EPSY 5761 Student Teaching in Early Childhood Special Education Settings for Children Aged Three to Five Years
S-N only, 3 credit(s), max credits 6; prereq Licensure candidate in Early Childhood Licensure Program; completion of all other licensure requirements for ECSE, instr consent; completion of Birth-3 student teaching should be completed after age 3-5 student teaching when possible;
Instructor: Johnson, LeAnne Denise
Description: Students enrolled in this course are licensure candidates in the Early Childhood Special Education Licensure Program. This course fulfills requirements for the Early Childhood Special Education Age 3-5 portion of the Early Childhood Special Education License. Student teachers work closely with their cooperating teacher and University supervisor to design and implement appropriate programming for young children age 3-5 receiving special education services in preschool classrooms. A seminar accompanies this student teaching experience in which students engage in discussion and cooperative learning experiences. A small portion of the seminar utilizes a lecture format.

EPSY 5762 Student Teaching in Early Childhood Special Education for Children Aged Birth to Three Years
S-N only, 3 credit(s), max credits 6; prereq Licensure candidate in Early Childhood/Licenses Program, completion of all other licensure requirements for ECSE, instr consent; completion of Birth-3 student teaching should be completed after age 3-5 student teaching when possible;
Instructor: Johnson, LeAnne Denise
Description: Students enrolled in this course are licensure candidates in the Early Childhood Special Education Licensure Program. This course fulfills student teaching requirements for the Early Childhood Special Education Age Birth to 3 portion of the Early Childhood Special Education license. Student teachers work closely with their cooperating teacher and University supervisor to design and implement appropriate programming for young children from Birth to Age 3 who are receiving special education services. A seminar accompanies this student teaching experience in which students engage in discussion and cooperative learning experiences. A small portion of the seminar utilizes a lecture format.

EPSY 5991 Independent Study in Educational Psychology
A-F only, 1-8 credit(s), max credits 10, 10 completions allowed; prereq instr consent; Instructor: STAFF
Description:

EPSY 8114 Seminar: Cognition and Learning
3 credit(s), max credits 9, 3 completions allowed; Instructor: Varma, Sashank
Description: Mathematical Thinking Recent research in cognitive science is shedding new light on the long-standing question of how people understand mathematics. This course will provide a review of this research. We will read papers focusing on how adults, children, and non-human primates understand fundamental mathematical concepts such as number, arithmetic, and algebra. The papers will be drawn from psychology, neuroscience, and education, and will span a range of methods and populations. Graduate and advanced undergraduate students with an interest in mathematics are invited to register for the course, regardless of disciplinary background. For questions or more information, please contact Dr. Sashank Varma (sashank@umn.edu).
Style: 20% Lecture, 80% Student Presentation. In most classes, students will take turns presenting the articles we read. The instructor will present particularly difficult articles. In addition, there will be occasional demonstrations of phenomena.
Grading: 40% reports/papers, 10% attendance, 40% in-class presentation, 10% class participation. Students will take turns presenting papers and leading discussion. They will also write a final paper describing a literature review or pilot study they conduct.

EPSY 8115 Psychology of Instruction and Technology
3 credit(s);
Instructor: Tennyson, Robert D
Description: Seminar: Psychology of Instruction and Technology Online Interactivity: Role of Technology in Behavior Change The goal of this seminar is to review the progress on the development of theoretical frameworks for role of computer technology in behavior change and to review the empirical results of qualitative or quantitative approaches to measuring the impact of online interactivity on learning. In summary, this seminar will deal with (a) the primacy of learning as a focus for technology, sometimes called serious online interactivity; (b) the need to integrate such technology with instructional and assessment strategies; (c) the paucity of and need to support the development of technology-based curriculum and tools; (d) the need to integrate assessment in technology; (e) the need for theory-driven and evaluation studies to increase our knowledge.
and efficacy of technology as tests; (f) the need for a psychometric approach to the use of technology assessments; and (g) the need to match the skills that the technology purports to develop to the skills, knowledge, and abilities that are needed to perform the criterion task.

EPSY 8215 Advanced Research Methodologies in Education
3 credit(s); prereq 5221, 5247, 8261, 8262, instr consent ;
Instructor: Harwell,Michael R
Description: Student may contact the instructor or department for information.

EPSY 8261 Statistical Methods I: Probability and Inference
3 credit(s); prereq 3264 or 5261 or equiv;
Instructor: delMas,Robert Claude
Description: This is the first course of the Ph.D. level statistics sequence in Educational Psychology. Students are introduced to basic methods of data description and statistical analysis. The course is applied, meaning the emphasis is on conceptual understanding of the methods used in data analysis rather than on the mathematical bases of the methods. It is assumed that the student has a working knowledge of high school-level algebra. Topics covered: descriptive statistics, normal distribution, sampling distributions, one- and two-sample hypothesis tests, confidence intervals, one-way analysis of variance, a priori and post hoc tests, simple linear regression, contingency table analysis, and testing assumptions for all statistical models.

EPSY 8261 Statistical Methods I: Probability and Inference
3 credit(s); prereq 5264 or 5261 or equiv;
Instructor: Zieffler PhD,Andrew S
Description: Student may contact the instructor or department for information.

EPSY 8261 Statistical Methods II: Regression and the General Linear Model
3 credit(s); prereq [8260, 8261] or equiv;
Instructor: Zieffler PhD,Andrew S
Description: Student may contact the instructor or department for information.

EPSY 8264 Advanced Multiple Regression Analysis
3 credit(s); prereq 8261-8262, regression and ANOVA course, familiarity with a statistical analysis package;
Instructor: Davenport Jr,Ernest C
Description: Student may contact the instructor or department for information.

EPSY 8268 Hierarchical Linear Modeling in Educational Research
3 credit(s); prereq [8261, 8262] or equiv[, instr consent ;
Instructor: Harwell,Michael R
Description: Student may contact the instructor or department for information.

EPSY 8281 Advanced Statistical Computing and Data Analysis
3 credit(s); prereq 5261 or equiv, 5281 or equiv;
Instructor: Davenport Jr,Ernest C
Description: Student may contact the instructor or department for information.

EPSY 8282 Statistical Analysis of Longitudinal Data
3 credit(s); prereq [8261, 8262] or equiv;
Instructor: Long,Jeffrey D
Description: Student may contact the instructor or department for information.

EPSY 8295 Evaluation Problems
1-6 credit(s), max credits 24, 24 completions allowed; prereq 5243 or EdPA 5501, instr consent ; Credit will not be granted if credit has been received for: EdPA 8595;
Instructor: King,Jean A
Description: Student may contact the instructor or department for information.

EPSY 8296 Evaluation Internship
1-9 credit(s), max credits 24, 24 completions allowed; prereq 5243 or EdPA 5501, instr consent ; Credit will not be granted if credit has been received for: EdPA 8596;
Instructor: Krueger,Richard A
Description: Student may contact the instructor or department for information.

EPSY 8311 Education Sciences Proseminar
A-F only, 1 credit(s), max credits 3, 3 completions allowed;
prereq Doctoral student, instr consent ;
Instructor: Davison,Mark L
Description: Student may contact the instructor or department for information.

EPSY 8402 Individual Counseling: Theory and Applications
A-F only, 3 credit(s); prereq Grad ed psy major with CSPP subprog or instr consent;
Instructor: Romano,John L
Description: Student may contact the instructor or department for information.

EPSY 8405 Career Development: Theory, Skills, and Counseling Applications
A-F only, 3 credit(s); prereq CSPP grad student;
Instructor: Hanson,Matthew R
Description: Student may contact the instructor or department for information.

EPSY 8406 Professional Ethics for Counselors and Psychologists
A-F only, 3 credit(s); prereq CSPP grad student;
Instructor: Burke,Caroline Anne
Description: Student may contact the instructor or department for information.

EPSY 8412 Seminar: Advanced Counseling Theory and Ethics
A-F only, 4 credit(s); prereq Ed psy PhD student with CSPP subprog or instr consent;
Instructor: Skovholt,Thomas M
Description: Student may contact the instructor or department for information.

EPSY 8436 Crisis Management and Consulting in School Counseling
A-F only, 3 credit(s); prereq CSPP grad student in school counselor program or instr consent;
Instructor: Wahl,Kay Herting
Description: Student may contact the instructor or department for information.

EPSY 8452 Psychological Aspects of Counseling Supervision
3 credit(s); prereq Ed psy PhD student with CSPP subprog or instr consent;
Instructor: Veach PhD,LP,Patricia McCarthy
Description: Student may contact the instructor or department for information.

EPSY 8501 Counseling Pre-Practicum
A-F only, 3 credit(s); prereq [CSPP or genetic counseling] grad student;
Instructor: Veach PhD,LP,Patricia McCarthy
Description: Student may contact the instructor or department for information.

EPSY 8503 Counseling Practicum I
A-F only, 1-4 credit(s), max credits 4, 1 completion allowed;
prereq 8502 or instr consent;
Instructor: Skovholt,Thomas M  
Description: Student may contact the instructor or department for information.

**EPSY 8503 Counseling Practicum I**  
A-F only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq 8502 or instr consent;  
Instructor: Wahi,Kay Herting  
Description: Student may contact the instructor or department for information.

**EPSY 8509 Supervision Practicum: CSPP**  
2 credit(s); prereq [Ed psy PhD student with CSPP subprog] or instr consent;  
Instructor: Skovholt,Thomas M  
Description: Student may contact the instructor or department for information.

**EPSY 8512 Internship: CSPP**  
S-N only, 1-12 credit(s), max credits 12, 12 completions allowed; prereq EdPsy PhD student with CSPP subprog;  
Instructor: Turner,Sheri L  
Description: Student may contact the instructor or department for information.

**EPSY 8522 Counseling Practicum: Advanced**  
A-F only, 3 credit(s), max credits 12, 4 completions allowed; prereq [Grad EPsy PhD student with CSPP subprog] or instr consent ; instructor consent required after 2 repeats;  
Instructor: Burke,Caroline Anne  
Description: Student may contact the instructor or department for information.

**EPSY 8701 Doctoral Core Seminar: Special Education I**  
A-F only, 3 credit(s), max credits 6; prereq EdPsy PhD student with spec ed subprog or instr consent;  
Instructor: Jitendra,Asha  
Description: Student may contact the instructor or department for information.

**EPSY 8707 Principles of Behavior Analysis and Learning**  
A-F only, 3 credit(s); prereq [Grad student, foundational course in [learning or psychology]] or instr consent ;  
Instructor: McComas,Jennifer  
Description: Student may contact the instructor or department for information.

**EPSY 8811 Assessment in School Psychology I: Foundations of Academic Assessment**  
A-F only, 3 credit(s); prereq Grad ed psy major with school psy subprog or instr consent;  
Instructor: Christ,Theodore J  
Description: Student may contact the instructor or department for information.

**EPSY 8813 Assessment Practicum in School Psychology**  
A-F only, 2 credit(s), max credits 4; prereq 8821, grad ed psy major with school psy subprog or instr consent, concurrent enrollment 8811 or concurrent enrollment 8812;  
Instructor: Christ,Theodore J  
Description: Student may contact the instructor or department for information.

**EPSY 8816 Individual Intervention and Consultation**  
A-F only, 3 credit(s);  
Instructor: Burns,Matthew K  
Description: Student may contact the instructor or department for information.

**EPSY 8818 Intervention Practicum in School Psychology**  
A-F only, 1 credit(s), max credits 2; prereq Grad ed psy major with school psy subprog, concurrent enrollment 8815 or concurrent enrollment 8816;  
Instructor: Burns,Matthew K  
Description: Student may contact the instructor or department for information.

**EPSY 8821 Issues in School Psychology**  
A-F only, 3 credit(s); prereq EdPsy grad student with SchlPsy subprog;  
Instructor: Ysselydke,Jim  
Description: Student may contact the instructor or department for information.

**EPSY 8831 Practicum: School Psychological Services**  
1-3 credit(s), max credits 6, 6 completions allowed; prereq Grad ed psy major with school psy subprog;  
Instructor: Hansen,Annie  
Description: Student may contact the instructor or department for information.

**EPSY 8832 Clinical/Community Practice in School Psychology**  
1-3 credit(s), max credits 6, 6 completions allowed; prereq Grad ed psy major with school psy subprog;  
Instructor: Hansen,Annie  
Description: Student may contact the instructor or department for information.

**EPSY 8841 Practicum: Instruction and Supervision in School Psychology**  
A-F only, 2 credit(s), max credits 4; prereq Grad ed psy major with school psy subprog or instr consent;  
Instructor: Christ,Theodore J  
Description: Student may contact the instructor or department for information.

**EPSY 8842 Internship: School Psychological Services**  
S-N only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq Grad ed psy major with school psy subprog, instr consent;  
Instructor: Hansen,Annie  
Description: Student may contact the instructor or department for information.

**EPSY 8850 Doctoral Seminar in School Psychology: Research, Training, Practice, Policy Issues, and Action Plans**  
A-F only, 3 credit(s); prereq [[Grad student in school psychology, coursework in school psychology] or advanced PhD student from related department], instr consent ;  
Instructor: Christenson,Sandra L.  
Description: Student may contact the instructor or department for information.

**Electrical and Computer Engineering**  
4-178 EE/CSci Building

**EE 1 Refresher Course for Electrical Engineers**  
A-F only, 0 credit(s); prereq [BSEE or BEE], pass EIT exam, four yrs elec eng experience;  
Instructor: Nordell,Daniel Edwin  
Description: This course is a review of electrical engineering fundamentals required to pass the National Council of Engineering Examiners Principles and Practice Examination in the discipline of Electrical Engineering. It is designed to aid the electrical engineer in preparation for the PE examination by presenting an organized review of material ordinarily contained in a college electrical engineering curriculum. Primary emphasis will be on problem solving with orientation as close as possible to the type of questions contained in the exam. Prerequisites: Completion of the Fundamentals of Engineering exam Electrical Engineering or equivalent degree 4 years electrical engineering experience  
Style: 75% Lecture, 25% Discussion.  
Grading: 100% successful completion of the FE exam

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
A-F only, 0 credit(s); prereq [BSEE or BEE], pass EIT exam, four yrs elec eng experience;
Instructor: Ernst, Thomas W
Description: This course is a review of electrical engineering fundamentals required to pass the National Council of Engineering Examiners Principles and Practice Examination in the discipline of Electrical Engineering. It is designed to aid the electrical engineer in preparation for the PE examination by presenting an organized review of material ordinarily contained in a college electrical engineering curriculum. Primary emphasis will be on problem solving with orientation as close as possible to the type of questions contained in the exam. Prerequisites: Completion of the Fundamentals of Engineering exam Electrical Engineering or equivalent degree 4 years electrical engineering experience
Style: 75% Lecture, 25% Discussion.
Grading: 100% successful completion of the FE exam

EE 1301 Introduction to Computing Systems
4 credit(s); prereq MATH 1271 or MATH 1371;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

EE 1701W Energy, Environment, and Society
3 credit(s); Meets CLE req of Writing Intensive;
Instructor: Imbertson, Paul Jay
Description: Student may contact the instructor or department for information.

EE 2001 Introduction to Electronic and Electrical Circuits
3 credit(s); prereq Phys 1302, Concurrent registration is required (or allowed) in is required in Math 2243, 2373, 2573;
Instructor: Wang, Jianping
Description: Student may contact the instructor or department for information.

EE 2002 Introductory Circuits and Electronics Laboratory
1 credit(s); prereq 2001 or Concurrent registration is required (or allowed) in 2001;
Instructor: Cohen, Philip I
Description: Student may contact the instructor or department for information.

EE 2006 Introductory Circuits Laboratory
0.5 credit(s);
Instructor: Cohen, Philip I
Description: Student may contact the instructor or department for information.

EE 2011 Linear Systems and Circuits
3 credit(s); prereq 2001;
Instructor: Imbertson, Paul Jay
Description: Student may contact the instructor or department for information.

EE 2101 Introduction to Electronics I
1.5 credit(s); prereq Linear circuits;
Instructor: Cohen, Philip I
Description: Student may contact the instructor or department for information.

EE 2103 Introduction to Electronics II
1 credit(s); prereq 2001 or 2101;
Instructor: Cohen, Philip I
Description: Student may contact the instructor or department for information.

EE 2301 Introduction to Digital System Design
4 credit(s); prereq MATH 1272 or MATH 1372 or MATH 1572;
Instructor: Cherkassky, Vladimir S
Description: Student may contact the instructor or department for information.

EE 2301 Introduction to Digital System Design
4 credit(s); prereq MATH 1272 or MATH 1372 or MATH 1572;
Instructor: Cherkassky, Vladimir S
Description: Student may contact the instructor or department for information.

EE 2301 Introduction to Digital System Design
4 credit(s); prereq MATH 1272 or MATH 1372 or MATH 1572;
Instructor: Cherkassky, Vladimir S
Description: Student may contact the instructor or department for information.

EE 2301 Introduction to Digital System Design
4 credit(s); prereq MATH 1272 or MATH 1372 or MATH 1572;
Instructor: Kim, Chris H.
Description: Student may contact the instructor or department for information.

EE 2301 Introduction to Digital System Design
4 credit(s); prereq MATH 1272 or MATH 1372 or MATH 1572;
Instructor: Riedel, Marc
Description: Student may contact the instructor or department for information.

EE 2361 Introduction to Microcontrollers
4 credit(s); prereq 2301, [1301 or CSCI 1113 or CSCI 1910];
Instructor: STAFF
Description: Computer organization, assembly language programming, arithmetic/logical operations, parallel/serial input/output. Microprocessor/microcontroller interfacing; memory design, exception handling, interrupts, using special-purpose features such as A/D converters, fuzzy logic, DSP operations. Integral lab.
Style: 50% Lecture, 15% Discussion, 35% Laboratory.
Grading: 15% mid exam, 40% final exam, 15% quizzes, 20% laboratory evaluation, 10% problem solving.
Exam Format: Solve problems

EE 3005 Fundamentals of Electrical Engineering
4 credit(s); prereq Math 2243, Phys 1302; not for EE majors;
Instructor: Higman, Ted King
Description: Student may contact the instructor or department for information.

EE 3006 Fundamentals of Electrical Engineering Laboratory
1 credit(s); prereq Concurrent enrollment in 3005 is allowed but not required;
Instructor: Higman, Ted King
Description: Student may contact the instructor or department for information.

EE 3015 Signals and Systems
3 credit(s); prereq [2011, CSE] or dept consent;
Instructor: Leger, James Robert
Description: Student may contact the instructor or department for information.

EE 3025 Statistical Methods in Electrical and Computer Engineering
3 credit(s); prereq [3015, CSE] or instr approval;
Instructor: Gopinath, Anand
Description: Student may contact the instructor or department for information.

EE 3041 Industrial Assignment I
A-F only, 2 credit(s); prereq [EE or CompE upper div], enrolled in ECE co-op program;
Instructor: Higman, Ted King
Description: Student may contact the instructor or department for information.

EE 3051 Circuits and Electronics Laboratory I
2 credit(s); prereq [2002, [3115 or Concurrent registration is required (or allowed) in 3115], CSE] or dept consent;
Instructor: Higman, Ted King
Description: Student may contact the instructor or department for information.

EE 3052 Circuits and Electronics Laboratory II
2 credit(s); prereq [3101 or CSE or dept consent ]; attendance first day of class;
Instructor: Robbins, William P

Instructor: Robbins, William P
Description: Experiments in circuits and electronics; team design project.

**EE 3115 Analog and Digital Electronics**
4 credit(s); prereq [3015 or Concurrent registration is required (or allowed) in 3015, IT] or dept consent; Instructor: Robbins, William P
Description: Student may contact the instructor or department for information.

**EE 3161 Semiconductor Devices**
3 credit(s); prereq Upper div CSE, 2011, Phys 1302, Phys 2303 or Chem 1022; Instructor: Koester, Steven J
Description: Student may contact the instructor or department for information.

**EE 3601 Transmission Lines, Fields, and Waves**
3 credit(s); prereq [2011, [Math 2243 or Math 2373 or Math 2573], [Phys 1302 or Phys 1402], CSE] or dept consent; Instructor: Franklin, Rhonda R.
Description: Student may contact the instructor or department for information.

**EE 3990 Curricular Practical Training**
S-N only, 1 credit(s), max credits 2; prereq instr consent, undergrad EE or CompE major; Instructor: Kinney, Larry L
Description: Student may contact the instructor or department for information.

**EE 4043W Industrial Assignment II**
A-F only, 4 credit(s); prereq 3041; Meets CLE req of Writing Intensive; Instructor: Higman, Ted King
Description: Student may contact the instructor or department for information.

**EE 4044 Industrial Assignment III**
A-F only, 2 credit(s); prereq 4043W; Instructor: Higman, Ted King
Description: Student may contact the instructor or department for information.

**EE 4231 Linear Control Systems: Designed by Input/Output Methods**
3 credit(s); prereq [3015, [upper div CSE or grad student in CSE major]] or instr consent; Instructor: Salapaka, Murli V
Description: Student may contact the instructor or department for information.

**EE 4235 Linear Control Systems Laboratory**
1 credit(s); prereq 4231 or Concurrent registration is required (or allowed) in 4231; Instructor: Georgiou, Tryphon T
Description: Lab to accompany 4231

**EE 4301 Digital Design With Programmable Logic**
4 credit(s); prereq 2301, [1301 or CSCI 1113 or CSCI 1901]; Instructor: Posbergh, Thomas Alfred
Description: Student may contact the instructor or department for information.

**EE 4363 Computer Architecture and Machine Organization**
4 credit(s); prereq 2361, credit will not be granted if credit received for: 5361, CSci 5201; Credit will not be granted if credit has been received for: CSCI 4203; Instructor: Posbergh, Thomas Alfred
Description: Student may contact the instructor or department for information.

**EE 4363 Computer Architecture and Machine Organization**
4 credit(s); prereq 2361 credit will not be granted if credit received for: 5361, CSci 5201; Credit will not be granted if credit has been received for: CSCI 4203; Instructor: Posbergh, Thomas Alfred
Description: Student may contact the instructor or department for information.

**EE 4501 Communications Systems**
3 credit(s); prereq 3025; Instructor: Wollenberg, Bruce F
Description: AC power systems; analysis of large power system networks; mathematics and techniques of power flow analysis, short circuit analysis, and transient stability analysis; use of a power system simulation program for design. Integral lab.

**EE 4505 Communications Systems Laboratory**
1 credit(s); prereq 4501 or Concurrent registration is required (or allowed) in 4501; Instructor: Wollenberg, Bruce F
Description: Student may contact the instructor or department for information.

**EE 4541 Digital Signal Processing**
3 credit(s); prereq [3015, 3025] or instr consent; Instructor: Ebbini, Emad S
Description: Review of linear discrete time systems and sampled and digital signals; Fourier analysis, discrete and fast Fourier transforms; interpolation and decimation; design of analog, infinite-impulse response and finite impulse response filters; quantization effects.

**EE 4721 Introduction to Power System Analysis**
3 credit(s); prereq 2011; Instructor: Wollenberg, Bruce F
Description: Student may contact the instructor or department for information.

**EE 4722 Power System Analysis Laboratory**
1 credit(s); prereq 4721 or Concurrent registration is required (or allowed) in 4721; Instructor: Wollenberg, Bruce F
Description: Student may contact the instructor or department for information.

**EE 4741 Power Electronics**
3 credit(s); prereq 3015, 3115; Instructor: Mohan, Ned
Description: This course is intended to provide a complete overview of Power Electronics that is an enabling technology for energy conservation and utilizing renewable energy resources. Topics include switch-mode DC Power Supplies; switch-mode Converters for DC and AC Motor Drives, Wind/Photovoltaic Inverters, interfacing power electronics equipment with Utility System, power semiconductor devices, magnetic design, etc. Associated with this course are PSPIce-based examples and exercises. The textbook (less than 300 pages) is written specifically for such a course by the instructor; it can be purchased at a very low cost from the university bookstore. Totally as an option, students in this lecture course can opt to construct a dc-dc converter from a kit with surface-mount parts. Optional related hardware laboratory is EE 4743.

**EE 4743 Switch-Mode Power Electronics Laboratory**
1 credit(s); prereq 4741 or Concurrent registration is required (or allowed) in 4741; Instructor: Mohan, Ned
Description: This hardware laboratory is intended to complement the lecture material in EE 4741. It consists of hardware experiments on various switch-mode dc-dc converters without transformer isolation such as Buck, Boost and Buck-Boost converters. It also consists of dc-dc converters with transformer isolation, such as Flyback and Forward converters.
One of the experiments requires design and implementation of a feedback control loop as in regulated dc power supplies.

**EE 4951W Senior Design Project**

4 credit(s); prereq 3015, 3115, 3102, 3601, attendance first day of class; Meets CLE req of Writing Intensive;  
Instructor: Ernie, Douglas  
Description: Student may contact the instructor or department for information.

**EE 4970 Directed Study**

1-3 credit(s), max credits 3; prereq Cr ar [may be repeated for cr]; dept consent;  
Instructor: STAFF  
Description: Studies of approved projects, either theoretical or experimental.

**EE 4981H Senior Honors Project I**

2 credit(s); prereq ECE honors, sr, instr consent;  
Instructor: Lilja, David J  
Description: Student may contact the instructor or department for information.

**EE 5163 Semiconductor Properties and Devices I**

3 credit(s); prereq [3161, 3601, CSE grad student] or dept consent;  
Instructor: STAFF  
Description: Principles and properties of semiconductor devices. Selected topics in semiconductor materials, statistics, and transport. Aspects of transport in p-n junctions, heterojunctions.

**EE 5171 Microelectronic Fabrication**

4 credit(s); prereq CSE grad student or dept consent;  
Instructor: Campbell, Stephen A  
Description: This course teaches the basic science and practical knowledge behind the fabrication of micro and nano structures. Although the course uses integrated circuits as its primary teaching vehicle, the topics covered can be applied to many kinds of electrical, mechanical, optical, and magnetic structures. Specific processes covered include lithography, oxidation, etch, diffusion, chemical and physical vapor deposition, and epitaxial growth. The course also discusses the assembly of these unit processes to make various technologies including CMOS, double poly bipolar, GaAs MESFET, light emitting diode and solid state lasers, and MEMS. Extensive knowledge of the physics of the operation of these devices is not necessary.  
Style: 100% Lecture.  
Grading: 15% mid exam, 25% final exam, 15% reports/papers, 30% quizzes, 15% problem solving.  
Exam Format: Problem Solving

**EE 5173 Basic Microelectronics Laboratory**

1 credit(s); prereq [5171 or Concurrent registration is required (or allowed) in 5171], CSE grad student or dept consent;  
Instructor: Campbell, Stephen A  
Description: Student may contact the instructor or department for information.

**EE 5181 Introduction to Nanotechnology**

4 credit(s); prereq [3161, 3601, CSE grad student] or dept consent;  
Instructor: Jacobs, Heinrich Otto Heiko  
Description: Student may contact the instructor or department for information.

**EE 5231 Linear Systems and Optimal Control**

3 credit(s); prereq [3015, CSE grad student] or instr consent;  
Instructor: Jovanovic, Mihailo  
Description: Student may contact the instructor or department for information.

**EE 5251 Optimal Filtering and Estimation**

3 credit(s); prereq [[MATH 2243, STAT 3021] or equiv], CSE grad student] or dept consent; 3025, 4231 recommended; Credit will not be granted if credit has been received for: AEM 5451;  
Instructor: Georgiou, Tryphon T  
Description: Student may contact the instructor or department for information.

**EE 5301 VLSI Design Automation I**

3 credit(s); prereq [2301, CSE grad student] or dept consent;  
Instructor: Sapatnekar, Sachin Suresh  
Description: Student may contact the instructor or department for information.

**EE 5323 VLSI Design I**

3 credit(s); prereq [2301, 3115, CSE grad student] or dept consent;  
Instructor: Kim, Chris H.  
Description: Student may contact the instructor or department for information.

**EE 5333 Analog Integrated Circuit Design**

3 credit(s); prereq [3115, CSE grad student] or dept consent;  
Instructor: Harjani, Ramesh  
Description: Fundamental circuits for analog signal processing. Design issues associated with MOS/BJT devices. Design/testing of circuits. Selected topics (e.g., modeling of basic IC components, design of operational amplifier or comparator or analog sampled-data circuit.

**EE 5364 Advanced Computer Architecture**

3 credit(s); prereq ([4363 or CSci 4203], CSE grad student) or dept consent credit will not be granted if credit received for: 8365, CSci 8203;  
Instructor: Zhai, Antonia Bingheng  
Description: Student may contact the instructor or department for information.

**EE 5371 Computer Systems Performance Measurement and Evaluation**

3 credit(s); prereq [4363 or 5361 or CSci 4203 or 5201], CSE grad student] or dept consent; Credit will not be granted if credit has been received for: EE 5863;  
Instructor: Lilja, David J  
Description: The primary objective of this course is to teach computer designers and users the techniques for modeling computer systems and measuring their performance. These techniques are critical for evaluating new computer designs and for comparing existing systems. This course will concentrate on empirical, hands-on performance evaluation techniques using simulations and measurements of existing systems. An important aspect of this modeling and analysis is the presentation of measured data. In addition, the course will develop an understanding of how to use measured data to compare computer systems, and to determine how much a new architectural feature improves system performance. Course Objectives: - Learn to use appropriate statistical techniques to compare systems and interpret measured data. - Learn how to develop and apply measurement tools and techniques. - Learn how to use analytical modeling. - Learn how to appropriately design experiments. - Learn how to develop and use various types of simulations. - Learn to choose an appropriate performance evaluation technique.  
Style: 95% Lecture, 5% Student Presentation.  
Grading: 40% reports/papers, 25% quizzes, 25% written homework, 10% in-class presentation.

**EE 5501 Digital Communication**

3 credit(s); prereq [3025, 4501, CSE grad student] or dept consent;  
Instructor: Giannakis, Georgios B  
Description: Student may contact the instructor or department for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
EE 5531 Probability and Stochastic Processes
3 credit(s); prereq [3025, CSE grad student] or dept consent
Instructor: Luo,Zhi-Quan
Description: Student may contact the instructor or department for information.

EE 5561 Image Processing and Applications
3 credit(s); prereq [4541, 5581, CSE grad student] or instr consent
Instructor: Sapiro,Guillermo R
Description: Student may contact the instructor or department for information.

EE 5581 Information Theory and Coding
3 credit(s); prereq [5531, CSE grad student] or dept consent
Instructor: Jindal,Nihar
Description: Student may contact the instructor or department for information.

EE 5624 Optical Electronics
4 credit(s); prereq ([3601 or Phys 3002], CSE grad student) or dept consent
Instructor: Talghader,Joseph John
Description: Student may contact the instructor or department for information.

EE 5653 Physical Principles of Magnetic Materials
3 credit(s); prereq CSE grad student or dept consent
Instructor: Victora,Randall H
Description: Physics of para-magnetism, ferro-magnetism, antiferro-magnetism, ferrimagnetism, and associated ferromagnetic phenomena; static and dynamic theory of micromagnetics, magnetooptics, magnetization dynamics and magnetic material applications. Target audience is graduate students in a variety of fields, including electrical engineering, physics and materials science.
Style: 100% Lecture.
Grading: 15% mid exam, 30% final exam, 15% reports/papers, 40% problem solving.
Exam Format: Problem solution

EE 5657W Physical Principles of Thin Film Technology
4 credit(s); prereq CSE grad student or dept consent; Meets CLE req of Writing Intensive
Instructor: Studler,Bethanie J. Hills
Description: This course covers the fabrication, characterization, and modern applications of thin films and nanostructures. Fabrication topics include vacuum technology, physical and chemical vapor deposition (CVD), and electrochemical deposition. The properties of resulting films are compared to each other and to bulk materials. Characterization techniques are reviewed. Finally, engineering the properties of films and nanostructures for applications in microfluidics, plasmonics, integrated photonics, nanoelectromechanical systems (NEMS), and nanoelectronics is important for optimized device performance. Therefore applications are the final topic taught and discussed as a summary of the course. A hands-on, team-based laboratory gives students experience with the fabrication techniques. The lab also exposes students to the facilities around campus so they will have a practical knowledge of specialized characterization. Each student completes a literature review, gives a presentation, and does a team lab report, all of which can be used towards the MSEE Plan C.
Style: 60% Lecture, 40% Laboratory. Laboratory times may need to vary from course guide times depending on schedule of teaching assistant.
Grading: 15% reports/papers, 40% written homework, 5% in-class presentation, 40% laboratory evaluation. Class work is individually graded, including a literature review project on topic of students choice. Laboratory is half individually graded and half a team grade.

EE 5940 Special Topics in Electrical Engineering I
1-4 credit(s), max credits 12, 3 completions allowed;
Instructor: Parhi,Keshab K.
Description: Student may contact the instructor or department for information.

EE 5950 Special Topics in Electrical Engineering II
1 credit(s), max credits 12, 3 completions allowed;
Instructor: Ernie,Douglas
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
Instructor: Imbertson,Paul Jay
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
Instructor: Parhi,Keshab K.
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
Instructor: Remnolet,Charles Leon
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
Instructor: Oltjesen,Hal
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
Instructor: Gopinath,Anand
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
Instructor: Tewfik,Ahmed Hossam
Description: Student may contact the instructor or department for information.
EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed; prerequisite Grad student, instr consent;
Instructor: Sapirno, Guillermo R
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed; prerequisite Grad student, instr consent;
Instructor: Sapatnekar, Sachin Suresh
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed; prerequisite Grad student, instr consent;
Instructor: Moon, Jaekyun
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed; prerequisite Grad student, instr consent;
Instructor: Wollenberg, Bruce F
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed; prerequisite Grad student, instr consent;
Instructor: Posbergh, Thomas Alfred
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed; prerequisite Grad student, instr consent;
Instructor: Papanikolopoulos, Nikolaos P
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed; prerequisite Grad student, instr consent;
Instructor: Parhi, Keshab K
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed; prerequisite Grad student, instr consent;
Instructor: Harjani, Ramesh
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed; prerequisite Grad student, instr consent;
Instructor: Cohen, Philip I
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed; prerequisite Grad student, instr consent;
Instructor: Ruden, P Paul
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed; prerequisite Grad student, instr consent;
Instructor: Georgiou, Tryphon T
Description: Student may contact the instructor or department for information.
Schedule.

Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class University of Minnesota - Course Guide for Twin Cities Campus Fall 2010

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
prereq Grad student, instr consent ;
Instructor: Robbins, William P
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
prereq Grad student, instr consent ;
Instructor: Sobelman, Gerald Edward
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
prereq Grad student, instr consent ;
Instructor: Leger, James Robert
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
prereq Grad student, instr consent ;
Instructor: Franklin, Rhonda R.
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
prereq Grad student, instr consent ;
Instructor: Ebbini, Emad S
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
prereq Grad student, instr consent ;
Instructor: Jovanovic, Mihailo
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
prereq Grad student, instr consent ;
Instructor: Kim, Chris H.
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
prereq Grad student, instr consent ;
Instructor: Jindal, Nihar
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
prereq Grad student, instr consent ;
Instructor: Ali, Anas
Description: Student may contact the instructor or department for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed;
prereq Grad student, instr consent ;
Instructor: Roychowdhury, Jaideep
Description: Student may contact the instructor or department for information.
EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 completions allowed; prereq Grad student, instr consent ;
Instructor: salapaka,murti v
Description: Student may contact the instructor or department for information.

EE 8163 Quantum Electronics
A-F only, 3 credit(s); prereq instr consent ;
Instructor: Talghader,Joseph John
Description: Student may contact the instructor or department for information.

EE 8500 Seminar: Communications
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
Instructor: Giannakis,Georgios B
Description: Student may contact the instructor or department for information.

EE 8591 Predictive Learning from Data
3 credit(s); prereq CSE grad student or instr consent ;
Instructor: Cherkassky,Vladimir S
Description: COURSE DESCRIPTION: Methods for estimating dependencies from data have been traditionally explored in such diverse fields as: Statistics (multivariate regression and classification), Engineering (pattern recognition, system identification) and Computer Science (artificial intelligence, machine learning, data mining). Recent interest in learning methods triggered by the widespread use of computers and database technology has resulted in the development of biologically motivated methodologies, such as (artificial) neural networks, fuzzy systems and wavelets. Unfortunately, developments in each field are seldom related to other fields. Many data mining application lead to predictive learning methods, where available (historical) data is used to estimate models with high generalization capability (i.e., models capable of prediction or decision making with new data). This course will first provide general conceptual framework for learning dependencies from data, and then discuss predictive learning methods developed in statistics, pattern recognition and machine learning. COURSE PROJECTS: Each student is expected to complete a project (of research nature). A list of project topics will be distributed during 2-d week of class. Students will receive close supervision and feedback on their projects from the instructor. Students may propose their own project topic, subject to the instructor's approval. During the last week of class, students will give a short (~15 min) oral presentation of their project. TEXTBOOK: Learning from Data, by V. Cherkassky and F. Muller, Second Edition, Wiley-Interscience

EE 8611 Plasma Physics
3 credit(s); prereq instr consent;
Instructor: Ernie, Douglas
Description: Student may contact the instructor or department for information.

EE 8660 Seminar: Magnetics
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
Instructor: Victoria,Randall H
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent ;
Instructor: Imbertson, Paul Jay
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent ;
Instructor: Ernie, Douglas
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent ;
Instructor: Mounes-Toussi,Farnaz
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent ;
Instructor: Rennolet, Charles Leon
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent ;
Instructor: Gopinath, Anand
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent ;
Instructor: Sapiro, Guillermo R
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent ;
Instructor: Sapatnekar, Sachin Suresh
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent ;
Instructor: Chatzi,Gerasimos
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent ;
Instructor: Moon, Jaekyun
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent ;
Instructor: Wollenberg,Bruce F
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent ;
Instructor: Tewfik,Ahmed Hossam
Description: Student may contact the instructor or department for information.
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Posbergh, Thomas Alfred
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Parhi, Keshab K.
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Harjani, Ramesh
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Cohen, Philip I
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Ruden, P. Paul
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Georgiou, Tryphon T
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Stadler, Bethanie J. Hills
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Higman, Ted King
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Kaveh, Mostafa
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Lilja, David J
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Mohan, Ned
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Talghader, Joseph John
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Holte, James Edward
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Campbell, Stephen A
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Hubel, Allison
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Kinney, Larry L
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Kieffer, John C
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent

Instructor: Robbins, William P
Description: Student may contact the instructor or department for information.
EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Sobelman,Gerald Edward
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Leger,James Robert
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Ebbini,Emad S
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Giannakis,Georgios B
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Bazargan,Kia
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Roychowdhury,Jaijeet
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Jacobs,Heinrich Otto Heiko
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Roumeliotis,Stergios
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Wang,Jianping
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Amin,Massoud
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Luo,Zhi-Quan
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: He,Bin
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Jovanovic,Mihailo
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Kim,Chris H.
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Amin,Massoud
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Oh,Sang-Hyun
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent
; Instructor: Yoon,Euisik
Description: Student may contact the instructor or department
EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 completion allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent ;
Instructor: salapaka,murti v
Description: Student may contact the instructor or department for information.

EE 8950 Advanced Topics in Electrical and Computer Engineering
3 credit(s), max credits 12, 4 completions allowed; prereq Cr ar [may be repeated for cr]; instr consent;
Instructor: Sainati,Robert A
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Imbertson,Paul Jay
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Ernie,Douglas
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Mounes-Toussi,Farnaz
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Parhi,Keshab K.
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Sainati,Robert A
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Posbergh,Thomas Alfred
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Rudden,P Paul
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Georgiou,Tryphon T
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Parhi,Keshab K.
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Wollenberg,Bruce F
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Harjani,Ramesh
Description: Student may contact the instructor or department for information.
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Lilja, David J
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Mohan, Ned
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Talghader, Joseph John
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Cherkassky, Vladimir S
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Campbell, Stephen A
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Hubel, Allison
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Kinney, Larry L
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Kieffer, John C
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Robbins, William P
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Sobelman, Gerald Edward
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Leger, James Robert
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Franklin, Rhonda R.
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Ebbini, Emad S
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Victora, Randall H
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Giannakis, Georgios B
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Bazargan, Kia
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Jacobs, Heinrich Otto Heiko
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Roychowdhury, Jaijeet
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
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Instructor: Jacobs, Heinrich Otto Heiko
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Amin, Massoud
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Luo, Zhi-Quan
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: He, Bin
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Jindal, Nihar
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
3 credit(s); prereq Grad EE major;
Instructor: Kim, Chris H.
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<th>Course Code</th>
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<th>Instructor</th>
<th>Credits</th>
<th>Prerequisites</th>
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<td>EE 8967 Plan C Project II</td>
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<td>Grad EE major</td>
<td>Student may contact the instructor or department for information.</td>
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EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Georgiou, Tryphon T
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Stadler, Bethanie J. Hills
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Higman, Ted King
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Kaveh, Mostafa
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Lilja, David J
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Mohan, Ned
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Talghader, Joseph John
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Cherkassky, Vladimir S
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Holte, James Edward
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Campbell, Stephen A
Description: Student may contact the instructor or department for information.

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Instructor: Hubel, Allison
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Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Sobelman, Gerald Edward
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EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Leger, James Robert
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Franklin, Rhonda R.
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Ebbini, Emad S
Description: Student may contact the instructor or department for information.

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1-3 credit(s), max credits 3, 1 completion allowed; prereq EE grad student;
Instructor: Giannakis, Georgios B
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Instructor: Roychowdhury, Jaijeet  
**Description:** Student may contact the instructor or department for information.

**EE 8967 Plan C Project II**  
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE  
grad student;  
Instructor: Jacobs, Heinrich Otto Heiko  
**Description:** Student may contact the instructor or department for information.

**EE 8967 Plan C Project II**  
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE  
grad student;  
Instructor: Roumelliotis, Stergios  
**Description:** Student may contact the instructor or department for information.

**EE 8967 Plan C Project II**  
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE  
grad student;  
Instructor: Wang, Jianping  
**Description:** Student may contact the instructor or department for information.

**EE 8967 Plan C Project II**  
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE  
grad student;  
Instructor: Amin, Massoud  
**Description:** Student may contact the instructor or department for information.

**EE 8967 Plan C Project II**  
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE  
grad student;  
Instructor: Luo, Zhi-Quan  
**Description:** Student may contact the instructor or department for information.

**EE 8967 Plan C Project II**  
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE  
grad student;  
Instructor: He, Bin  
**Description:** Student may contact the instructor or department for information.

**EE 8967 Plan C Project II**  
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE  
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Instructor: Jindal, Nihar  
**Description:** Student may contact the instructor or department for information.

**EE 8967 Plan C Project II**  
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE  
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Instructor: Kim, Chris H.  
**Description:** Student may contact the instructor or department for information.

**EE 8967 Plan C Project II**  
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE  
grad student;  
Instructor: Jovanovic, Mihailo  
**Description:** Student may contact the instructor or department for information.

**EE 8967 Plan C Project II**  
1-3 credit(s), max credits 3, 1 completion allowed; prereq EE  
grad student;  
Instructor: Riedel, Marc  
**Description:** Student may contact the instructor or department for information.

**EE 8970 Graduate Seminar I**  
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq Grad student;  
Instructor: Ebbini, Emad S  
**Description:** Student may contact the instructor or department for information.

**Emergency Health Services**  
20 Classroom Office Building  

**EHS 3112 First Responder for Coaches and Athletic Trainers**  
A-F only, 3 credit(s); prereq Jr or sr;  
Instructor: Mc Neil MA, Mary Ann  
**Description:** This nationally recognized curriculum is taught according to the standards of the Department of Transportation (USDOT). It is presented in an interactive and small group format to prepare students to work at the level of First Responder, the first level in the EMS chain of emergency care delivery. Certification includes: AHA-BLS for Health Care Providers and USDOT First Responder. Includes: Patient assessment, airway management, trauma care, and critical thinking.  
**Style:** 30% Lecture, 5% Film/Video, 30% Laboratory, 30% Small Group Activities, 5% Guest Speakers. This course is scenario based learning. Every class will contain 1/2 didactic presentations, 1/2 activities.  
**Grading:** 20% final exam, 20% quizzes, 10% in-class presentation, 25% class participation, 25% laboratory evaluation. Student may not miss >3 class sessions. This will result in dismissal from the course.  
**Exam Format:** Combination written/practical skills demonstration.

**EHS 3112 First Responder for Coaches and Athletic Trainers**  
A-F only, 3 credit(s); prereq Jr or sr;  
Instructor: Rozenbergs, Viktors Uld  
**Description:** This nationally recognized curriculum is taught according to the standards of the Department of Transportation (USDOT). It is presented in an interactive and small group format to prepare students to work at the level of First Responder, the first level in the EMS chain of emergency care delivery. Certification includes: AHA-BLS for Health Care Providers and USDOT First Responder. Includes: Patient assessment, airway management, trauma care, and critical thinking.  
**Style:** 30% Lecture, 5% Film/Video, 30% Laboratory, 30% Small Group Activities, 5% Guest Speakers. This course is scenario based learning. Every class will contain 1/2 didactic presentations, 1/2 activities.  
**Grading:** 20% final exam, 20% quizzes, 10% in-class presentation, 25% class participation, 25% laboratory evaluation. Student may not miss >3 class sessions. This will result in dismissal from the course.  
**Exam Format:** Combination written/practical skills demonstration.
EHS 3312 Emergency Medical Technician

A-F only, 6 credit(s); prereq Jr or sr;
Instructor: Mc Neil MA, Mary Ann
Description: Successful completion of this course will make student eligible to take the National Registry for EMT (NREMT) test. Knowledge and practical experience to make competent decisions regarding treatment of medical and trauma patients at the basic life support level, as set forth by the Department of Transportation. Includes: patient assessment; airway management; AHA basic life support for health professionals; trauma management; medical emergencies management; mass casualty and bio-terrorism response, critical thinking and decision-making.
Style: 30% Lecture, 5% Film/Video, 50% Small Group Activities, 10% Guest Speakers. Course consists of 1/2 didactic presentations, 1/2 small group skills/scene practice.
Grading: 15% mid exam, 15% final exam, 20% quizzes, 10% attendance, 10% class participation, 30% other evaluation. Students will be assessed on their class participation and clinical skills performance. This makes up 50% of the grade; additional 50% is a combination of all the quizzes and exams. > 3 absences will result in termination from course.
Exam Format: Written test and clinical skills performance.

EHS 3312 Emergency Medical Technician

A-F only, 6 credit(s); prereq Jr or sr;
Instructor: Alberti, Laszlo S
Description: Successful completion of this course will make student eligible to take the National Registry for EMT (NREMT) test. Knowledge and practical experience to make competent decisions regarding treatment of medical and trauma patients at the basic life support level, as set forth by the Department of Transportation. Includes: patient assessment; airway management; AHA basic life support for health professionals; trauma management; medical emergencies management; mass casualty and bio-terrorism response, critical thinking and decision-making.
Style: 30% Lecture, 5% Film/Video, 50% Small Group Activities, 10% Guest Speakers, 5% Service Learning. Class consists of 1/2 didactic presentations, 1/2 small group skills/scene practice.
Grading: 15% mid exam, 15% final exam, 20% quizzes, 10% attendance, 10% class participation, 30% other evaluation. Students will be assessed on their class participation and clinical skills performance. This makes up 50% of the grade; additional 50% is a combination of all the quizzes and exams. > 3 absences will result in termination from course.
Exam Format: Written test and clinical skills performance.

ENDO 5305 Advanced Clinical Endodontics

A-F only, 1-6 credit(s); max credits 6; prereq 5304;
Instructor: Baisden, Michael Kenneth
Description: Student may contact the instructor or department for information.

ENDO 5308 Advanced Clinical Endodontics

A-F only, 1-6 credit(s); max credits 6; prereq 5307, dep consent;
Instructor: Baisden, Michael Kenneth
Description: Student may contact the instructor or department for information.

ENDO 5312 Advanced Endodontic Emergency

S-N only, 1 credit(s); prereq 5311;
Instructor: Bowles, Walter Ray
Description: Student may contact the instructor or department for information.

ENDO 5315 Advanced Endodontic Emergency

S-N only, 1 credit(s); prereq 5314, dept consent;
Instructor: Bowles, Walter Ray
Description: Student may contact the instructor or department for information.

ENDO 5329 Review of Cases

A-F only, 1 credit(s); prereq dept consent;
Instructor: McClanahan, Scott B
Description: Student may contact the instructor or department for information.

ENDO 5331 Review of Cases

A-F only, 1 credit(s); prereq 5330;
Instructor: McClanahan, Scott B
Description: Student may contact the instructor or department for information.

ENDO 8001 Research in Endodontics

1-2 credit(s), max credits 2, 1 completion allowed; prereq dept consent;
Instructor: Edmunds, Robert Sprague
Description: Student may contact the instructor or department for information.

ENDO 8004 Research in Endodontics

1-2 credit(s), max credits 2, 1 completion allowed; prereq dept consent;
Instructor: Bowles, Walter Ray
Description: Student may contact the instructor or department for information.

ENDO 8310 Literature Review
A-F only, 2 credit(s); prereq dept consent; Instructor: Baisden, Michael Kenneth
Description: Student may contact the instructor or department for information.

ENDO 8312 Literature Review
A-F only, 2 credit(s); prereq 8311; Instructor: Baisden, Michael Kenneth
Description: Student may contact the instructor or department for information.

ENDO 8320 Advanced Endodontic Lecture
A-F only, 1 credit(s); prereq dept consent; Instructor: Bowles, Walter Ray
Description: Student may contact the instructor or department for information.

ENDO 8322 Advanced Endodontic Lecture
A-F only, 1 credit(s); prereq 8321; Instructor: Bowles, Walter Ray
Description: Student may contact the instructor or department for information.

English as a Second Language
101 Wesbrook Hall

ESL 110 Beginning Grammar
S-N only, 0 credit(s), 4 completions allowed; prereq Nonnative English speaker;
Instructor: STAFF
Description: The course helps students refine and extend their skills in using basic grammar. The focus is on understanding and using fundamental grammatical structures at the sentence level. It includes topics such as verb tenses, questions, comparison, and article usage. Students study the use of word forms and grammatical structures in readings and conversations, practice in controlled speaking and writing exercises, and communicate with their classmates and teacher about topics of interest.

ESL 120 Beginning Reading and Composition
S-N only, 0 credit(s), 4 completions allowed; prereq Nonnative English speaker;
Instructor: STAFF
Description: In this level 1 intensive reading and writing course for non-native speakers of English, students will improve reading comprehension by using strategies to identify the topic, main idea and details of adapted academic and general interest texts. Students will also choose books of interest to read for pleasure. In addition, students will develop informal and formal writing skills by writing weekly journal entries and four to five multi-draft papers of one or more paragraphs. In writing, students will work on developing content and organization as well as grammatical accuracy. Discussion and vocabulary development are included.
Exam Format: Short answer

ESL 130 High Beginning Oral Skills
S-N only, 0 credit(s), 3 completions allowed; prereq Non-native speaker of English;
Instructor: STAFF
Description: The course focuses primarily on listening and speaking, with some reading, writing, and grammar. The text, which emphasizes high-frequency vocabulary and sentence patterns as they are used in real-life situations. Students will practice skills such as starting and maintaining a conversation and using 'echo' questions to check information. The course will emphasize the active use of language, as students share information with classmates, using new skills and vocabulary.

ESL 210 Intermediate Grammar
S-N only, 0 credit(s), 4 completions allowed; prereq Non-native speaker of English;
Instructor: STAFF
Description: The course helps students build on their skills in basic grammar, adding to their range and accuracy at the paragraph level. Topics are likely to include the present perfect tense, gerunds and infinitives, modals, and comparative and superlative forms. Students study the use of word forms and grammatical structures in readings and conversations, practice in controlled speaking and writing assignments, and communicate with their classmates and teacher about topics of interest.

ESL 220 Intermediate Reading and Composition
S-N only, 0 credit(s), 4 completions allowed; prereq Nonnative English speaker;
Instructor: STAFF
Description: The purpose of this level 2 course is to help non-native speakers of English improve reading and writing skills in English. Students will read academic and non-academic texts about a variety of topics. Students will practice effective reading strategies as they read and discuss in class, and they will improve writing proficiency and strengthen grammar and vocabulary skills. In writing, students will work on topic sentences, paragraph and essay development and improving their accuracy in written English through informal writing, such as journals, and in more formal academic writing of multi-draft papers.

ESL 230 Intermediate Oral Skills
S-N only, 0 credit(s), 4 completions allowed; prereq Nonnative English speaker;
Instructor: STAFF
Description: The text is organized around broad themes like global business, art, states of consciousness, and addictive substances. The course emphasizes listening and speaking equally, and the two skills are integrated: students will talk about what they have listened to. In listening, students work on broad skills such as understanding main ideas and narrower skills like distinguishing between similar-sounding words. In speaking, they work on such skills as conversation, asking questions to confirm understanding, and expressing opinions. There is some attention to pronunciation and vocabulary development. The course helps students with general everyday English, broadcast English, and academic English.
Style: 20% Lecture, 65% Discussion, 15% Laboratory. Grading: 25% special projects, 15% quizzes, 25% in-class presentation, 25% class participation, 10% laboratory evaluation.
Exam Format: Short answers

ESL 320 Advanced Reading and Composition
S-N only, 0 credit(s), 4 completions allowed; prereq Non-native speaker of English;
Instructor: STAFF
Description: ESL 621 is a Level 3 intensive reading and writing course for non-native speakers of English. Students will practice reading skills including skimming, scanning, previewing, predicting content, making inferences, and distinguishing fact from opinion. Students will practice writing skills including paraphrasing and summarizing, editing and proofreading their own and others' work, and selecting and incorporating sources. Students will learn to employ a process approach to writing, and will progress from developing paragraphs to developing academic essays employing appropriate rhetorical modes.

ESL 330 Advanced Oral Skills
S-N only, 0 credit(s), 4 completions allowed; prereq Nonnative English speaker;
Instructor: STAFF
Description: The text is organized around themes of business, media studies, science, psychology, and art & design. Students will listen to academic lectures, take notes and discuss the lectures. The course also supplies help with the academic language to expect and use in these situations. There may be additional work with pronunciation. Students may do individual and group presentations on related topics.

ESL 410 English Grammar for Academic Purposes
S-N only, 0 credit(s), 4 completions allowed; prereq Non-native speaker of English;
Instructor: STAFF
Description: The course helps students build on their skills in
Description: This course focuses on increasing students' accuracy and range in English grammar. Topics that are especially relevant to academic writing, such as conciseness and smooth connections between sentences, are emphasized. Among the traditional topics of grammar, these are likely to be included: subordination, coordination, and transition expressions; tense, aspect, and associated adverbials; gerunds, infinitives, and other types of complementation; and lexical grammar—the grammar associated with individual words. Activities and regular assignments improve students' ability to analyze grammar, including their own mistakes, and to use grammar more effectively.

ESL 420 High Advanced Reading/Composition
S-N only, 0 credit(s), 4 completions allowed; prereq Non-native speaker of English;
Instructor: STAFF
Description: ESL 721 is a Level 4 course for non-native speakers of English that builds and refines advanced-level reading, writing, and critical thinking skills including audience awareness and incorporating sources. In this course students will read essays and articles on a variety of topics from multiple sources. Students will improve their ability to identify main ideas and details, analyze and critique support, and respond with their own ideas in writing and discussion. Students will write three multi-draft papers: a personal experience essay, an argumentative essay, and a research report. Students will also develop informal writing skills.
Exam Format: Variety

ESL 430 High Advanced Oral Skills
S-N only, 0 credit(s), 4 completions allowed; prereq Non-native speaker of English;
Instructor: STAFF
Description: The textbook is organized around topics of anthropology, economics, literature and ecology, and uses a variety of styles (social language, broadcast English, and academic English). This course focuses on increasing students' listening and speaking skills including some pronunciation and academic note-taking. Students may do individual and group presentations on related topics.

ESL 904 TOEFL Preparation
S-N only, 0 credit(s);
Instructor: STAFF
Description: Learn important test-taking skills in preparation for taking the internet-based Test of English as a Foreign Language (TOEFL iBT). Intensive review of the four skills assessed on this exam: reading, written expression, listening, and speaking. What this course focuses on the TOEFL (iBT), the test taking skills and language review covered in this course would also be useful if you are preparing to take the paper-based TOEFL, IELTS, or MELAB exams.

ESL 921 Academic Writing
S-N only, 0 credit(s), 3 completions allowed; prereq Non-native speaker of English;
Instructor: STAFF
Description: ESL 781 is a course for non-native speakers of English that teaches students how to recognize and use different patterns of development in writing (such as narration, exemplification, and cause and effect) to deepen and extend ideas in various academic contexts. Guided textual analyses of readings are used to stimulate classroom discussions of shared topics and to support developing writing skills through close observation of rhetorical strategies employed by accomplished writers. Typical assignments include argumentative essays, reviews or opinion essays, short research papers, and possible independent assignments based on the specific needs of individual students.

ESL 931 Academic Speaking
S-N only, 0 credit(s), 3 completions allowed; prereq Non-native speaker of English;
Instructor: STAFF
Description: An advanced course for non-native speakers who want to improve their communication skills for social, academic and professional purposes; emphasis is on listening and speaking; content is drawn from the mass media.

Style: 25% Lecture, 45% Discussion. Small group work
Grading: 10% mid exam, 10% final exam, 25% special projects, 25% in-class presentation, 25% class participation, 5% laboratory evaluation.
Exam Format: Variety

ESL 3001 Integrated Skills for Academic English
2 credit(s), max credits 4; prereq Non-native speaker of English;
Instructor: STAFF
Description: This course will help non-native English speaking students in degree programs polish their English skills in order to be successful in university level classes. Topics will cover the English language needed to interact within university setting, academic life, student/instructor roles, communicating by email, classroom interactions, discussion/panel presentation skills.

ESL 3101 Advanced English Grammar
4 credit(s), max credits 8; prereq dept consent, non-native speaker of English, [C-TOEFL score 153-187 or equiv], ESL program consent;
Instructor: STAFF
Description: This course for academic credit is designed for students already enrolled in degree programs at the University of Minnesota to work on polishing their English skills. Students review and solidify their understanding and control of English grammar in writing and speaking. The focus is on grammar in context at the multi-paragraph level. Topics include verb tenses, noun clauses, the passive voice, conditionals, and adjective clauses. This knowledge is applied to development of revision and editing skills in the writing process. Written assignments and oral practice help students communicate their ideas more accurately and confidently.

ESL 3102 English Grammar for Academic Purposes
4 credit(s), max credits 8; prereq 3101, [Non-native speaker of English, [C-TOEFL score of at least 190 or equiv], dept consent
Instructor: STAFF
Description: This course for academic credit is designed for students already enrolled in degree programs at the University of Minnesota to work on polishing their English skills and builds on the concepts covered in ESL 3101. This course focuses on increasing students' accuracy and range in English grammar. Topics that are especially relevant to academic writing, such as conciseness and smooth connections between sentences, are emphasized. Among the traditional topics of grammar, these are likely to be included: subordination, coordination, and transition expressions; tense, aspect, and associated adverbials; gerunds, infinitives, and other types of complementation; and lexical grammar—the grammar associated with individual words. Activities and regular assignments improve students' ability to analyze grammar, including their own mistakes, and to use grammar more effectively.

ESL 3201 Advanced English Reading and Composition
5 credit(s), max credits 10; prereq Non-native speaker of English, [IBT score of 53-67 or equiv], dept consent
Instructor: STAFF
Description: This is an intensive reading and writing course for non-native speakers of English who are studying in degree programs at the University of Minnesota. Students will practice reading skills including skimming, scanning, previewing, predicting content, making inferences, and distinguishing fact from opinion. Students will practice writing skills including paraphrasing and summarizing, editing and proofreading their own and others' work, and selecting and incorporating sources. Students will learn to employ a process approach to writing, and will progress from developing paragraphs to developing academic essays employing appropriate rhetorical modes.

ESL 3202 Academic Reading and Composition
5 credit(s), max credits 10; prereq 3201, Non-native speaker
of English, [iBT score of at least 68 or equiv], dept consent
Instructor: STAFF
Description: This is a course for advanced non-native speakers of English who have achieved an iBT score of at least 68 in speaking, writing, reading, and listening, and who have demonstrated an understanding of English grammar and vocabulary. This course is designed to improve students' ability to communicate effectively in academic and professional settings.

ESL 3302 Writing for Academic Purposes
4 credit(s), max credits 8; prereq 3202, non-native speaker of English, [C-TOEFL score of at least 100 or equiv], dept consent
Instructor: STAFF
Description: This course is designed for advanced non-native speakers of English who are preparing to take the iBT TOEFL. The course focuses on improving reading, writing, listening, and speaking skills, and aims to help students develop the ability to communicate effectively in academic and professional settings.

ESL 3402 Research Writing for the American University
4 credit(s), max credits 8; prereq [Non-native speaker of English, [TOEFL iBT 79 or IELTS 6.5 or MNBatt 80 or equiv]] or dept consent
Instructor: STAFF
Description: This course is designed for non-native speakers of English who are preparing to take the iBT TOEFL. The course focuses on improving reading, writing, listening, and speaking skills, and aims to help students develop the ability to communicate effectively in academic and professional settings.

ESL 3501 Advanced English Listening and Speaking
5 credit(s), max credits 10; prereq Non-native speaker of English, [iBT score 53-67 or equiv], dept consent
Instructor: STAFF
Description: This course is designed for students who have achieved an iBT score of 53-67 in speaking, writing, reading, and listening, and who have demonstrated an understanding of English grammar and vocabulary. The course focuses on improving students' ability to communicate effectively in academic and professional settings.

ESL 3502 Academic Listening and Speaking
5 credit(s), max credits 10; prereq 3501, non-native speaker of English, [iBT score of at least 68 or equiv], dept consent
Instructor: STAFF
Description: This course is designed for students who have achieved an iBT score of 68 or higher in speaking, writing, reading, and listening, and who have demonstrated an understanding of English grammar and vocabulary. The course focuses on improving students' ability to communicate effectively in academic and professional settings.

ESL 3551 English Pronunciation
4 credit(s), max credits 8; prereq Non-native speaker of English, dept consent
Instructor: STAFF
Description: This course is designed for advanced non-native English speaking students who want to polish their pronunciation skills in English. In order to improve your ability to understand and pronounce English, a variety of pronunciation will be covered while paying special attention to whatever is most difficult for you. Students will also be equipped with techniques to practice pronunciation improvement on their own. Topics covered include English sounds (individually and in combination with other sounds), word stress, sentence stress, rhythm, intonation, linking, understanding fast speech, pronunciation and spelling connections. Open to graduate and undergraduate students, visiting scholars, and members of the community with advanced English skills or above. Check with the Minnesota English Language Program for more information (612-624-1503).
confines of our own lives. In this course we will travel to a variety of places: the quiet winter of a New England village, the shining waters off Madagascar, a roadside gulch in rural Georgia, storm and tempest on the South China Sea, a dinner party in Dublin, a bleak road winding its way through post-apocalyptic America, the bright meadows of an English countryside. Our imaginative travels will constitute an introduction to the deep reading, interpretation, and appreciation of literature. The course is aimed at students who enjoy reading as well as those who have not (yet) found pleasure in literature: all are welcome. We will begin with short stories and novels by a variety of authors such as R. Carver, W. Faulkner, M. Helpman, F. O'Connor, J. C. Oates, J. Conrad, J. Joyce, E. A. Poe, J. Updike, N. Hawthorne, C. Bly, A. Beattie, U. Le Guin. We will read one novel: Cormac McCarthy's dark masterpiece, The Road. We will then learn how to read and interpret lyric poetry, culled from examples from the seventeenth century to the present: authors such as Auden, Bishop, Blake, Dickinson, Donne, Frost, Hughes, Keats, Plath, Rich, Stevens, Wordsworth, Yeats, and Whitman. We will end the course with one or two plays. Our course goals will be to analyze mature and challenging literary texts; to learn how to understand the artistry of literature and discuss its complexity in an informed, sophisticated fashion, both orally and in writing; to examine how literature responds to the world around us and creates imagined worlds of beauty and terror. This is a Writing Intensive course and will include regular, weekly work to improve students' writing; student can also expect quizzes, a midterm and a final exam. Style: 50% Lecture, 50% Discussion.

ENGL 1181W Introduction to Shakespeare 4 credit(s); prereq credit will not be granted if credit already received for: ENGL 1181, 1182; Credit will not be granted if credit has been received for: ENGL 1181V; Meets CLE req of Literature; meets CLE req of Writing Intensive; Instructor: Krug, Rebecca L Description: We will study ten or so of Shakespeare's plays including at least one from each genre (comedy, history, romance, tragedy). Particular attention will be paid to the history of the English stage and conventions of Elizabethan drama. We will focus on poetic expression, thematic concerns, stagecraft, and dramatic representation. This course assumes no prior knowledge of Shakespeare's plays on the part of students enrolled. Style: 75% Lecture, 15% Discussion. Staging of scenes.

ENGL 1301W Introduction to Multicultural Literatures of the United States 4 credit(s); prereq credit will not be granted if credit already received for: ENGL 1301, 1302; Credit will not be granted if credit has been received for: ENGL 1301V; Meets CLE req of Diversity and Soc Justice US; meets CLE req of Literature; meets CLE req of Writing Intensive; Instructor: STAFF Description: There can never been one single voice for the American experience, an idea that is illumined through a study of American multicultural literature. How have African Americans, Latinos/as, Native Americans, and immigrants told of their experiences? How has the struggle for equality found its voice in novels, plays, and testimonies? How does literature both embrace and resist the dominant culture? These questions are answered in diverse ways by such authors as W.E.B. DuBois, Frederick Douglass, Joy Kogawa, Leslie Marmon Silko, and many others.

ENGL 1501W Literature of Public Life A-F only, 4 credit(s); prereq credit will not be granted if credit already received for: ENGL 1501; Meets CLE req of Civic Life and Ethics; meets CLE req of Literature; meets CLE req of Writing Intensive; Instructor: STAFF Description: How has American literature addressed what it means to be a citizen? English 1501 examines literature written with the intent to leave an impression: works that have stunned, mobilized, stimulated, and galvanized the American public. The course is dialectical, setting diverse works against one another to form a dialogue that extends across chronological, geographic, and racial boundaries. "Literature" is defined broadly to include novels, speeches, essays, testimonies, sermons, plays, music, photography, and film. Recent readings have included Uncle Tom's Cabin, Maggie: A Girl of the Streets, The Souls of Black Folk, Twilight: Los Angeles, 1992, and Nickel and Dimed: On (Not) Getting By in America. This course doesn't sit on the shelf: it will ask students to examine and engage with the world around them.

ENGL 1701 Modern Fiction 3 credit(s); Credit will not be granted if credit has been received for: ENGL 1701H; Meets CLE req of Literature; Instructor: STAFF Description: English 1701 provides an introduction to short stories and novels written after 1900, both in English originally, and in translation. During this time period, fascinating writers have graced the literary scene, including John Cheever, Ernest Hemingway, Franz Kafka, William Faulkner, Zora Neale Hurston, and James Baldwin. These are among the authors students are likely to study in Modern Fiction. Generally, the course is based around four to five novels and several short stories. This allows for slightly more time to be spent within each work than is often granted in broad survey courses. Because of the in-depth nature of this study, students learn to identify and analyze such elements of fiction as theme, genre, structure, form, language, and context.

ENGL 1902 Topics: Freshman Seminar: America in Crisis: Actualities and Textualities A-F only, 3 credit(s); prereq Fr; Meets CLE req of Diversity and Soc Justice US; Instructor: Messer-Davidow, Ellen Description: Student may contact the instructor or department for information.

ENGL 1905 Topics: Freshman Seminar: Writing from Plow to Plate A-F only, 3 credit(s); prereq freshman; Instructor: Philippon, Daniel J Description: This seminar will explore how the sustainable food movement got started in the U.S. by focusing on the farmers, activists, cooks, and eaters who made it all possible. We'll read some of the most important things they wrote over the last forty years, including manifestos, cookbooks, memoirs, and more. We'll also spend some time shopping, cooking, and eating; watching a few great new documentaries on food; and visiting "Cornucopia," the student organic farm on the St. Paul Campus. Writers whose work we'll read include Wendell Berry, Wes Jackson, Frances Moore Lappe, Peter Singer, Julia Child, Alice Waters, Carlo Petrini, and Michael Pollan. Our goal throughout will be to discover the role that writers have played in telling the story of our food from farm to table, or "plow to plate." Style: 30% Lecture, 10% Film/Video, 50% Discussion, 5% Student Presentation, 5% Field Trips. Grading: 45% reports/papers, 15% quizzes, 15% journal, 5% reflection paper, 10% in-class presentation, 10% class participation.

ENGL 1905 Topics: Freshman Seminar: Global Childhoods: Coming of Age Narratives A-F only, 3 credit(s); prereq freshman; Instructor: Tinsley, Omise'ke Natasha Description: Student may contact the instructor or department for information.

ENGL 1910W Topics: Freshman Seminar: Our Monsters, Ourselves A-F only, 3 credit(s); prereq freshman; Meets CLE req of Writing Intensive; Instructor: Craig, Slobhan S Description: Student may contact the instructor or department for information.

ENGL 3001V Honors: Textual Analysis, Methods A-F only, 4 credit(s); prereq Honors, [English major or minor or approved BIS or IDIM program with English area] credit

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
ENGL 3001W Textual Analysis: Methods
A-F only, 4 credit(s); prereq English major or minor or premajor or BIS/IDIM-English credit will not be granted if credit already received for: ENGL 3001, 3801; Credit will not be granted if credit has been received for: ENGL 3001V; Meets CLE req of Writing Intensive;
Instructor: Johnson McGarry PhD,Elizabeth M
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You will work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Engl 3001W gives the interested student an exploration of literature through the last several centuries and a foundation in the practice of techniques of literary study. The course also provides an introduction to some major trends in contemporary criticism, as well as to the terminology that critics and scholars use to describe the forms and styles of literary works.
Style: Online
Grading: --Course Completion Calendar (ungraded but required)--Written exercises in each lesson (49%) --4 oral recordings (5%) --6 short essays (33.5%) --A final proposal and formal essay (12.5%)
Exam Format: There are no exams.

ENGL 3001W Textual Analysis: Methods
A-F only, 4 credit(s); prereq English major or minor or premajor or BIS/IDIM-English credit will not be granted if credit already received for: ENGL 3001, 3801; Credit will not be granted if credit has been received for: ENGL 3001V; Meets CLE req of Writing Intensive;
Instructor: Suguin,Charles J
Description: The class will start with portions of Terry Eagleton's very readable Literary Theory, together with excerpts from Gauri Viswanathan and others, to familiarize students with the major contemporary schools of thought about what "literature" is for and how texts should be read. We will then read several works, probably including Shakespeare's "The Tempest", Aime Cesaire's 1960 rewrite "A Tempest", and J.M. Coetzee's "Foe" (a South African revision of both "Robinson Crusoe" and "The Tempest"). The notion of "literature" will also be broadened and challenged by attention to recorded "dub" poetry, cinema, and video. Writing assignments will consist of a series of shorter papers rather than a single long paper at the end.

ENGL 3001W Textual Analysis: Methods
A-F only, 4 credit(s); prereq English major or minor or premajor or BIS/IDIM-English credit will not be granted if credit already received for: ENGL 3001, 3801; Credit will not be granted if credit has been received for: ENGL 3001V; Meets CLE req of Writing Intensive;
Instructor: Weinshenker,Joel Clyde
Description: Students in this class will practice the technique of close reading in the three genres of short story, poetry, and drama. Authors to be read include Kafka, Steinbeck, O'Connor, Plath, Marvell, Shakespeare, Sophocles, and Miller. The three major essays include one full-dress research paper on a poem of the student's choosing.
Style: 100% Discussion.
Grading: 75% reports/papers, 25% quizzes.

ENGL 3001W Textual Analysis: Methods
A-F only, 4 credit(s); prereq English major or minor or premajor or BIS/IDIM-English credit will not be granted if credit already received for: ENGL 3001, 3801; Credit will not be granted if credit has been received for: ENGL 3001/V; Meets CLE req of Writing Intensive;
Instructor: Garner,Shirley Nelson
Description: Student may contact the instructor or department for information.

ENGL 3002 Modern Literary Criticism and Theory
3 credit(s); prereq credit will not be granted if credit already received for: ENGL 3802; Credit will not be granted if credit has been received for: ENGL 3002H;
Instructor: Brennan,Timothy Andres
Description: The goal of this course is to give you a foundation in theory's terminologies, the different methodologies used in literary and cultural analysis, and a sense of the various schools of criticism that have developed in the postwar period. The intended outcome is for you to learn about as wide a range of theoretical positions as possible in a single semester. Apart from discussing specific textual and cultural problems, we will investigate the work of well-known thinkers themselves. We will attempt to understand and, if possible, master their most characteristic styles of argument without necessarily internalizing their lessons in a subservient way. In recognition of our uneven levels of training, the course has been set up to accommodate the greatest number of you while retaining the goal of rigorous intellectual preparation. We will work through individual chapters from the anthology, Critical Terms for Literary Study. These chapters correspond to basic problematics of literary and cultural theory (for example, "representation," "value," "class," and "desire."). The anthology has been designed to present this deceptively simple material in everyday language. We will supplement its chapters with essays from a course packet. The packet is also intended to introduce students to the seminal work of theorists who defined fields of inquiry rather than merely commented on those fields at a later date.
Exam Format: There will be one midterm and a final essay.

ENGL 3002 Modern Literary Criticism and Theory
3 credit(s); prereq credit will not be granted if credit already received for: ENGL 3802; Credit will not be granted if credit has been received for: ENGL 3002H;
Instructor: Scandura,Jani
Description: Student may contact the instructor or department for information.

ENGL 3002H Honors: Modern Literary Criticism and Theory
3 credit(s); prereq Honors or instr consent credit will not be granted if credit already received for: ENGL 3802; Credit will not be granted if credit has been received for: ENGL 3002;
Instructor: Ismail,Qadri M
Description: Theory is about thinking in the abstract. Or, in other words, the usefulness of concepts. This class will focus on understanding some conceptual constructs critical to thing about both literature and our present epistemological moment. Some - like plot, character, narrative - are very old. Others - like the subject, agency, class, history, culture, literature itself - emerged, even if this is not generally acknowledged, only with the enlightenment. Still others - like the unconscious, text, discourse, interpellation, difference - emerged even more recently, generally in opposition...
to concepts of the enlightenment. We will examine as many as possible; but the focus of the class will be on the cardinal
categories of what has become known as post-structuralism.

Style: 60% Lectures, 40% Discussion.
Grading: 30% mid exam, 30% final exam, 40% reports/papers.
Exam Format: essay

ENGL 3003W: Historical Survey of British Literatures I
4 credit(s); prereq credit will not be granted if credit already
received for: EngL 3003; Meets CLE req of Historical
Perspectives; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: This course, the first in the Survey of British
Literature series, introduces students to the literature of the
British Isles from the Anglo-Saxon period to the eighteenth
century. This broad sweep through time covers the Medieval
period, the Renaissance (or, Early Modern Age), Civil Wars,
Restoration, and the Enlightenment and provides a fascinating
variety of works in a multitude of genres including poetry, drama,
plays, novels, essays, autobiography, and speeches. Students
will read authors such as Milton, Chaucer, Spenser, Marlowe,
and DeFoe, as well as lesser-known writers, thus gaining a more
complete understanding of the literature of these periods.
Because artistic expression is affected and informed by historical
circumstances, texts are placed within their historical moments
and considered in terms of their social, political, biographical,
and economical contexts and close reading is used to connect
features of the texts to their culture in order to gain a greater
understanding of both. This course is demanding in its reading
and writing requirements, but the variety and complexity of
human experiences presented here affords great opportunity for
stimulating discussion and thoughtful writing.

ENGL 3004W: Historical Survey of British Literatures II
4 credit(s); prereq credit will not be granted if credit already
received for: EngL 3003; Meets CLE req of Historical
Perspectives; meets CLE req of Writing Intensive;
Instructor: McNaron, Toni A
Description: This course is a printed distance learning section
(known as a correspondence course) offered through Online and
Distance Learning, College of Continuing Education. You will
work independently, not as part of a student group. Visit "Class
URL" for ODL policies, including fee and financial aid restrictions.
EngL 3003W is a two-semester look at English poetry and prose
from its beginning into the 20th century. It focuses on works
written between the Middle Ages and the end of the 18th
century. You may have enrolled in this course as the first step
forward studying English writers, working into modern times, or
you may simply want to read authors from earlier centuries in
order to gain a historical perspective on more recent literature.
Either way, I want you to enjoy the experience, considering at
every stage the ways in which early literature is relevant to us today.

Style: Historical, social, and aesthetic contexts.
Grading: 30% mid exam, 30% final exam, 30% reports/papers.

ENGL 3005W: Survey of American Literatures and Cultures I
4 credit(s); prereq credit will not be granted if credit already
received for: EngL 3004; Meets CLE req of Historical
Perspectives; meets CLE req of Writing Intensive;
Instructor: Van Ausdall, Mimi S
Description: This course, the first in the Survey of British
Literature series, introduces students to the literature of the
British Isles from the Anglo-Saxon period to the eighteenth
century. This broad sweep through time covers the Medieval
period, the Renaissance (or, Early Modern Age), Civil Wars,
Restoration, and the Enlightenment and provides a fascinating
variety of works in a multitude of genres including poetry, drama,
plays, novels, essays, autobiography, and speeches. Students
will read authors such as Milton, Chaucer, Spenser, Marlowe,
and DeFoe, as well as lesser-known writers, thus gaining a more
complete understanding of the literature of these periods.
Because artistic expression is affected and informed by historical
circumstances, texts are placed within their historical moments
and considered in terms of their social, political, biographical,
and economical contexts and close reading is used to connect
features of the texts to their culture in order to gain a greater
understanding of both. This course is demanding in its reading
and writing requirements, but the variety and complexity of
human experiences presented here affords great opportunity for
stimulating discussion and thoughtful writing.

ENGL 3006W: Survey of American Literatures and Cultures II
4 credit(s); prereq credit will not be granted if credit already
received for: EngL 3005; Meets CLE req of Historical
Perspectives; meets CLE req of Writing Intensive;
Instructor: McNeff, Heather J
Description: This is a fully online section offered through Online
and Distance Learning (ODL), College of Continuing Education.
Visit "Class URL" for ODL policies, including fee and financial aid
restrictions. Readings in American literature from first European
contact, through colonial times, to mid-19th century. Texts in
several genres by diverse authors. Classics, less familiar works.
Historical, social, and aesthetic contexts.
Style: 100% Web Based.
Grading: 15% mid exam, 15% final exam, 30% reports/papers, 10% quizzes, 21% class participation.
Exam Format: Supervised (not online) in-person exams.

ENGL 3007W: Survey of American Literatures and Cultures III
4 credit(s); prereq credit will not be granted if credit already
received for: EngL 3006; Meets CLE req of Diversity and Soc Justice US;
meets CLE req of Literature; meets CLE req of Writing
Intensive;
Instructor: Mikos, Keith Michael
Description: This is a fully online section offered through Online
and Distance Learning (ODL), College of Continuing Education.
Visit "Class URL" for ODL policies, including fee and financial aid
restrictions. Readings in American literature from first European
contact, through colonial times, to mid-19th century. Texts in
several genres by diverse authors. Classics, less familiar works.
Historical, social, and aesthetic contexts.
Style: 100% Web Based.
Grading: 15% mid exam, 15% final exam, 30% reports/papers, 10% quizzes, 21% class participation.
Exam Format: Supervised (not online) in-person exams.

ENGL 3008W: Survey of American Literatures and Cultures IV
4 credit(s); prereq credit will not be granted if credit already
received for: EngL 3007; Meets CLE req of Diversity and Soc Justice US;
meets CLE req of Literature; meets CLE req of Writing
Intensive;
Instructor: Roth-Reinhardt, Anne E
Description: Student may contact the instructor or department
for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online
Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class
Schedule.

201
ENGL 3007 Shakespeare
A-F only, 3 credit(s); prerequisite credit will not be granted if credit already received for: ENGL 3807; Credit will not be granted if credit has been received for: ENGL 3007H; Meets CLE req of Literature;
Instructor: Clayton, Tom
Description: Shakespeare is "the largest writer we shall ever know," and "if I were limited to just one book, it would be the collected works of Shakespeare," wrote Harold Bloom not long ago, for good reason. Shakespeare's plays create a diversely populated virtual reality of incomparable imaginative power through a language of extraordinary expressiveness, depth of perception, and sheer wit. And he seems to have been gifted with a rare understanding of human nature as well as compassion for its weaknesses, and a breadth of vision in matters ethical and political, that make him an invaluable guide through the labyrinth of motive and endeavor in life as we know it. His plays on the stage and in film are exciting and enlightening in many ways, and on the page in some of those and many others. This course takes account of production, of the plays' historical context, and of critical "approaches," but the emphasis is on critical reading and informed discussion of the plays themselves and of "Shakespeare our contemporary," never forgetting that, as Hamlet tells the prying, spying interchangeable Rosenstein and gentle Guildenstantz, "there is nothing good or bad but "thinking" makes it so." The assigned plays include two comedies, three tragedies, two romances, and a history.
Style: variable and depends a lot on the class; 25%* informal lecture, 75%* discussion
Grading: 30% mid exam, 55% final exam, 15% quizzes.
Exam Format: mostly essay, typically including synthesis, comparison, and analysis of passages; also "objectionale" (i.e., objective) questions

ENGL 3007H Honors: Shakespeare
A-F only, 3 credit(s); prerequisite credit will not be granted if credit already received for: ENGL 3807; Credit will not be granted if credit has been received for: ENGL 3007H; Meets CLE req of Literature;
Instructor: Hancher, Michael
Description: This course is an in-depth examination of Plays from all of Shakespeare's periods, chosen from among A Midsummer Night's Dream, Hamlet, the history plays, Measure for Measure, Twelfth Night, King Lear, Othello, Antony and Cleopatra, and The Tempest. Class time: 15% lecture, 85% discussion. Work load: Read 8 plays, write 2 -page two-page papers, and 1 - 10 page paper; participate in a group project. Grade: 80% written work; 20% class participation.

ENGL 3007 Shakespeare
A-F only, 3 credit(s); prerequisite credit will not be granted if credit already received for: ENGL 3807; Credit will not be granted if credit has been received for: ENGL 3007H; Meets CLE req of Literature;
Instructor: Garner, Shirley Nelson
Description: Play is Shakespeare's play, chosen from among A Midsummer Night's Dream, Hamlet, the history plays, Measure for Measure, Twelfth Night, King Lear, Othello, Antony and Cleopatra, and The Tempest. Class time: 15% lecture, 85% discussion. Work load: Read 8 plays, write 2 -page two-page papers, and 1 - 10 page paper; participate in a group project. Grade: 80% written work; 20% class participation.

ENGL 3007H Honors: Shakespeare
A-F only, 3 credit(s); prerequisite credit will not be granted if credit already received for: ENGL 3007; Credit will not be granted if credit has been received for: ENGL 3007H; Meets CLE req of Literature;
Instructor: Bancher, Michael
Description: Close study of six major plays from all phases of Shakespeare's career (Romeo and Juliet; A Midsummer Night's Dream; As You Like It, Hamlet, the history plays, Macbeth, and The Tempest); as well as some of his sonnets. Special attention will be paid to Shakespeare's double craft as both a poet and

ENGL 3007H Honors: Shakespeare
A-F only, 3 credit(s); prerequisite credit will not be granted if credit already received for: ENGL 3007, 3807; Credit will not be granted if credit has been received for: ENGL 3007H; Meets CLE req of Literature;
Instructor: Clayton, Tom
Description: Shakespeare is "the largest writer we shall ever know," and "if I were limited to just one book, it would be the collected works of Shakespeare," wrote Harold Bloom not long ago, for good reason. Shakespeare's plays create a diversely populated virtual reality of incomparable imaginative power through a language of extraordinary expressiveness, depth of perception, and sheer wit. And he seems to have been gifted with a rare understanding of human nature as well as compassion for its weaknesses, and a breadth of vision in matters ethical and political, that make him an invaluable guide through the labyrinth of motive and endeavor in life as we know it. His plays on the stage and in film are exciting and enlightening in many ways, and on the page in some of those and many others. This course takes account of production, of the plays' historical context, and of critical "approaches," but the emphasis is on critical reading and informed discussion of the plays themselves and of "Shakespeare our contemporary," never forgetting that, as Hamlet tells the prying, spying interchangeable Rosenstein and gentle Guildenstantz, "there is nothing good or bad but "thinking" makes it so." The assigned plays include two comedies, three tragedies, two romances, and a history.
Style: variable and depends a lot on the class; 25%* informal lecture, 75%* discussion
Grading: 30% mid exam, 55% final exam, 15% quizzes.
Exam Format: mostly essay, typically including synthesis, comparison, and analysis of passages; also "objectionale" (i.e., objective) questions

ENGL 3007 Shakespeare
A-F only, 3 credit(s); prerequisite credit will not be granted if credit already received for: ENGL 3807; Credit will not be granted if credit has been received for: ENGL 3007H; Meets CLE req of Literature;
Instructor: Hancher, Michael
Description: This course is an in-depth examination of Plays from all of Shakespeare's periods, chosen from among A Midsummer Night's Dream, Hamlet, the history plays, Measure for Measure, Twelfth Night, King Lear, Othello, Antony and Cleopatra, and The Tempest. Class time: 15% lecture, 85% discussion. Work load: Read 8 plays, write 2 -page two-page papers, and 1 - 10 page paper; participate in a group project. Grade: 80% written work; 20% class participation.

ENGL 3007H Honors: Shakespeare
A-F only, 3 credit(s); prerequisite credit will not be granted if credit already received for: ENGL 3007; Credit will not be granted if credit has been received for: ENGL 3007H; Meets CLE req of Literature;
Instructor: Garner, Shirley Nelson
Description: Play is Shakespeare's play, chosen from among A Midsummer Night's Dream, Hamlet, the history plays, Measure for Measure, Twelfth Night, King Lear, Othello, Antony and Cleopatra, and The Tempest. Class time: 15% lecture, 85% discussion. Work load: Read 8 plays, write 2 -page two-page papers, and 1 - 10 page paper; participate in a group project. Grade: 80% written work; 20% class participation.
playwright. Style: 30% Lecture, 5% Film/Video, 60% Discussion, 5% Small Group Activities. Grading: 60% reports/papers, 20% quizzes, 10% reflection paper, 10% class participation. The "basic course requirements" (mentioned in the University definitions of course grades) include regular attendance.

ENGL 3010 Studies In Poetry: Some Poems about Some Cities 3 credit(s), max credits 9, 3 completions allowed; Credit will not be granted if credit has been received for: ENGL 3010H; Instructor: Goldberg,Brian B Description: Engl 3010: Some Poems About Some Cities EngL 3010 will provide students with the opportunity to read and respond to a selection of poems that are, in one way or another, about cities. The primary emphasis of the course will be on poetry written in English during the 18th, 19th, and 20th centuries, but poetry in translation and poetry from other periods will also be included. Students will be required to do some critical writing and, experimentally, some writing of poetry. Interested students are welcome to contact the instructor, by e-mail, with suggested readings for the course syllabus.

ENGL 3020 Studies in Narrative 3 credit(s), max credits 9, 3 completions allowed; Credit will not be granted if credit has been received for: ENGL 5020; Instructor: STAFF Description: From fables, tales, and classics to picture books, graphic novels, and popular fiction, this course focuses on the history and development of children's literature in Britain and the United States. Along with reading, analyzing, and discussing the literary and visual elements of such works as Robinson Crusoe, Alice's Adventures in Wonderland, Where the Wild Things Are, and Harry Potter, we will also consider the ways in which social, cultural, political, and technological factors impact publishing for children. Underlying our examination of the literature will be the discussion of the concept of childhood, including an investigation of what constitutes childhood and the role of children, and how these have changed over time and across cultures. This course also provides a review of current scholarship and research in children's literature.

ENGL 3027W The Essay 4 credit(s); Meets CLE req of Writing Intensive; Instructor: STAFF Description: This is a course for students ready to face more challenging assignments and deepen their comfort and skill with writing. The instructor helps the student develop more sophisticated research strategies and experiment with more creative stylistic choices. Assignments might include autobiographies, critical comparisons, reviews of articles or books, cultural analyses, persuasive essays, and annotated bibliographies. Students in this course learn to: Generate topics and develop essays with greater independence than they exercised in freshman composition. Write for multiple audiences -- academic and non-academic -- making appropriate decisions about content, rhetoric, structure, vocabulary, style, and format. Write creative non-fiction and other genres incorporating complex description and analysis. Analyze the conventions and styles of writing in their major field. Experiment with new and more sophisticated writing strategies and styles.

ENGL 3030 Studies in Drama: Plutarch & Shakespeare 3 credit(s), max credits 9, 3 completions allowed; Credit will not be granted if credit has been received for: ENGL 5030; Instructor: Clayton,Tom Description: Shakespeare: The Late, Great Greek and Roman Tragedies Antony and Cleopatra, Coriolanus, and Timon of Athens were Shakespeare's last three tragedies and in many ways his most challenging and powerful, written at the height of his expressive powers to probe sociopolitical and spiritual realities in ways he had not earlier attempted so intensively if at all. Julius Caesar was a not-so-dry run in effect--in the newly built Globe Theatre (1599) --for both Hamlet (1600-01) and these plays (1606-08), and some account will be taken of it, accordingly Shakespeare book the 18th and 19th Parallel Lives of the Greeks and Romans by the Greek philosopher, "ethicist," and biographer Plutarch, who opens one way into the theater of genius--and was a thinker and writer of significance and distinction himself; we will accordingly consider him in his own right as well as in relation to Shakespeare. Aristotle will play a part, too, but the emphasis will be on what Shakespeare wrote, and how that means, experienced through whatever medium or media. Including some video, the course will be regularly "email-enhanced" but probably not Powerpoint-stered. Style: 30% Lecture, 15% Film/Video, 45% Discussion, 15% Small Group Activities. Distribution of time is bound to vary somewhat from class to class. Grading: 15% mid exam, 15% quizzes, 35% additional semester exams, 25% reflection paper, 10% in-class presentation. 3 exams, the third 20%. The papers will be analytical, not open-ended "reflection." Exam Format: Some objective questions, but mostly analysis and essay.

ENGL 3040 Studies in Film 3 credit(s), max credits 9, 3 completions allowed; Credit will not be granted if credit has been received for: ENGL 3040H; Instructor: STAFF Description: Film Noir features darkness, both literal and metaphorical, shot in shadow, with deliberate symbolism. This course explores Film Noir from the early days of the post-war moment to the Neo-Noir refigurings of today, with detours into critical and creative explorations of the social, political, historic, theoretic, and artistic issues Film Noir so darkly frames.

ENGL 3060 Studies in Literature and the Other Arts: Sound and Vision 3 credit(s), max credits 9, 3 completions allowed; Instructor: Sirc,Geoffrey Michael Description: Student may contact the instructor or department for information.

ENGL 3090 General Topics: Transatlantic Modernism 4 credit(s), max credits 12, 3 completions allowed; Instructor: Treuer,David Robert Description: Student may contact the instructor or department for information.

ENGL 3090 General Topics 3 credit(s), max credits 12, 3 completions allowed; Instructor: Liberman,Anatoly Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You will work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. At present those interested in English etymology study the history of English, methods of linguistic reconstruction, Sanskrit, Greek, Latin, French and so forth. Every subject can be studied in depth, and this is what specialists do. But it is also possible to be introduced to a scholarly discipline and learn enough to have an informed opinion about it. This course is exactly such an introduction. Its user can be anyone who wants to know how the words of English emerged, clashed, combined, lost their initial freshness, and died, to give way to upstarts whose day will also come. We will travel from the misty home of the Indo-Europeans to the North Sea and Great Britain. We will follow the Vikings and the Normans. The books and the tapes will be your guides in these peregrinations. Style: This is a printed correspondence section. Grading: 35% reports/papers, 65% written homework. Exam Format: No exams

ENGL 3090 General Topics 3 credit(s), max credits 12, 3 completions allowed; Instructor: Liberman,Anatoly Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You will work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions.
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**Style:** This is a printed correspondence section.

**Grading:** 35% reports/papers, 65% written homework.

**Exam Format:** No exams

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**ENGL 3122 The King James Bible as Literature**

3 credit(s); prereq credit will not be granted if credit received for: 3132;

**Instructor:** Haley, David B

**Description:** Literature of the New Testament (Gospels, Acts, Pauline Epistles, Revelation). We'll spend a couple of weeks reviewing books from the Jewish Bible (the "Old Testament") such as Exodus, Deuteronomy, Isaiah, and Ecclesiastes. Then we'll focus on two big topics of continuing interest: (1) the Kingdom of Heaven that Jesus promised to his followers, and (2) the more practical, but still idealized community envisioned by Paul. By approaching these works as literature, we may hope to account in some measure for their extraordinary success. All biblical readings will be from the King James version (published by Zondervan). Instead of exams, there will be three or four tests based on study questions, several short essays, and a
ENGL 3515H Honors: Romantic Literatures and Cultures
A-F only, 3 credit(s);
Instructor: Elfenbein, Andrew
Description: Student may contact the instructor or department for information.

ENGL 3505 Community Learning Internships I
A-F only, 3 credit(s);
Instructor: Daigre, Eric Stephen
Description: Since this is the first of a two-semester course, students registering for EngL 3505 will continue on to EngL 3506 (Community Learning Internships II). In class, students will explore literacy, educational theory, concepts of civic engagement, as well as the connections between literature and literacy, theory and practice, community work and academic study. Outside of class, students work 3-4 hours per week at participating nonprofit and educational organizations ranging from K-12 schools to adult education centers. Class presentations. Readings. Weekly reflective and analytical writing assignments will add up to a substantial portfolio. Students receive initial training from Career and Community Learning Center and Minnesota Literacy Council, and orientations at community sites.

ENGL 3592W Introduction to Black Women Writers in the United States
3 credit(s); prerequisite credit will not be granted if credit already received for: Afro 3592, EngL 3592; Meets CLE req of Writing Intensive;
Instructor: Pate, Alexs D.
Description: This course seeks to explore the literary production of North American Black women from diverse backgrounds and perspectives. Through their varied and common experiences of Black females living in a white-male-dominated culture, we will endeavor they understand the social construction of race and gender, as well as, their intersection with class and social-economic dynamics. In the Black cultural and literary traditions of truth narratives, and transparency, these women share their historical, cultural, and contemporary experiences and insights with verve and authority. At the heart of their literary pursuit is the aspiration to live a more informed, enriched, and inspired life. In so doing, these writers offer us important lessons about creativity, hope, empowerment, courage, and self-expression.

ENGL 3960W Senior Seminar: Bodies, Selves, Texts
4 credit(s); prerequisite credit will not be granted if credit already received for: Afro 3951W; Meets CLE req of Writing Intensive;
Instructor: Wright, John S
Description: AFRO/ENGL 3951W African Americans are “America’s metaphor,” Richard Wright declared, posing both a riddle and a riff that together reverse conventional perspectives. Through their varied and common experiences of African American literature evolved as a heavily "committed" tradition with both ancient African and Euro-American antecedents. Much of its mythological system and special "equipment for living" has been built on the communal base of the most elaborate vernacular tradition in American English--epic tales and legends, spirituals, blues, work songs, ballads, rhymed toasts, riddles, proverbs, jazz, jokes, and the rhetoric of rap music. During this first semester, our caravan will lead us forward from pre-modern Africa itself and the era of the earliest African American literary works; 18th and 19th century slave autobiographies, oral folk texts, abolitionist essays, orations and poems on to the contemporary period of literature marked by burgeoning diversity and modernist innovation, by growing critical acclaim, and by the Jazz Age politico-aesthetic art movement known as the Harlem Renaissance. Final Course Grade Components: 3 short essays; 1/6th each; combined quizzes--1/6th; final paper, 1/3rd (80% for the final draft of the paper itself, 20% for the preliminary thesis and full sentence outline submitted at the Research Paper Workshop).

ENGL 3601 Analysis of the English Language
4 credit(s); prerequisite credit will not be granted if credit already received for: EngL 3601W;
Instructor: Elfenbein, Andrew
Description: A 4-part introduction to the analysis of the English language: (1) basics (phonetics, morphology, syntax, semantics); (2) sociolinguistic and psycholinguistic approaches to English; (3) overview of the history of English; (4) literary stylistics.
Style: 60% Lecture, 10% Discussion, 10% Small Group Activities, 20% Demonstration.
Grading: 15% mid exam, 20% final exam, 25% quizzes, 30% written homework, 5% attendance, 5% class participation.

ENGL 3711 Literary Magazine Production Lab I
A-F only, 4 credit(s);
Instructor: STAFF
Description: In the first of two sequential courses (ENGL 3712 registration required), students produce the undergraduate art and literary magazine Ivory Tower. Students decide upon the desired identity, tone, and direction of the issue. They explore and take on magazine staff responsibilities. They call for submissions, make selections, investigate the edit and design processes, set a budget and begin fund-raising.

ENGL 3741 Literary and American Cultural Diversity
4 credit(s); prerequisite credit will not be granted if credit already received for: EngL 3741; Meets CLE req of Civic Life and Ethics; meets CLE req of Literature;
Instructor: Davis, Abigail F
Description: Student may contact the instructor or department for information.

ENGL 3741 Literary and American Cultural Diversity
4 credit(s); prerequisite credit will not be granted if credit already received for: EngL 3741; Meets CLE req of Civic Life and Ethics; meets CLE req of Literature;
Instructor: Davis, Abigail F
Description: Students will serve as literacy workers for 2 hours a week outside of class at participating organizations in the nonprofit and educational sectors. This class combines academic study with experiential learning in order to collectively build a more engaged, complex understanding of the functions of literature, literacy, educational institutions, counter-institutional literacy programs, and the different cultures and communities in Minnesota and the Americas in general. We’ll explore questions of “praxis,” considering and applying our readings to the concrete circumstances of our community work, at all points trying to “make the connection” between our classroom and community work. In asking what literacy really means and what it means to be “democratic educators” in both spheres, we will challenge the distinction between classroom and community work, and confront the social, political, and material conditions of the local and global networks of power and knowledge. Students will develop a plan to engage in a community literacy-related endeavor in the local or international contexts. Textbook: Kate A. Turabian, The Chicago Manual of Style (Chicago: University of Chicago Press, 2003). Readings will include reports and critiques of community-based literacy practice, theoretical essays on issues of literacy and social justice, and material on the art and craft of creating literary and community-based publications.

ENGL 3960W Senior Seminar: Bodies, Selves, Texts
This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
A-F only, 4 credit(s); prereq English major, [jr or sr], major adviser approval, dept consent credit will not be granted if credit already received for: ENG 3960; Meets CLE req of Writing Intensive;
Instructor: Lee, Josephine D
Description: Student may contact the instructor or department for information.

ENGL 3960W Senior Seminar: Hawthorne and the Brontës
A-F only, 4 credit(s); prereq English major, [jr or sr], major adviser approval, dept consent credit will not be granted if credit already received for: ENG 3960; Meets CLE req of Writing Intensive;
Instructor: Ross, John D
Description: Student may contact the instructor or department for information.

ENGL 3960W Senior Seminar: Sleuths, Strumpets, and Scoundrels
A-F only, 4 credit(s); prereq English major, [jr or sr], major adviser approval, dept consent credit will not be granted if credit already received for: ENG 3960; Meets CLE req of Writing Intensive;
Instructor: Cuclis, Lois B
Description: "Sleuths, Strumpets, and Scoundrels: The Making of Modern Detective Fiction from Newgate to Baker Street"
Beginning with the infamous Newgate Calendar, this senior seminar investigates the rising popularity of English crime fiction over the 19th century and the appearance of its eventual foil, the modern detective, made legendary by Conan Doyle's Sherlock Holmes. Among the mysteries we'll take up alongside Holmes's stories are Wilkie Collins's _Moonstone_ , Dickens's last and unfinished novel, _Edwin Drood_ , and L.T. Mead's _The Sorceress of the Strand_. Over the course of the term, we'll consider what gave rise to these texts as well as their effect on the popular imagination. Delving into these "crime scenes" will allow us to pursue the objective of the senior seminar and that is for class members to develop a thesis around one or more of the texts discussed, with the ultimate goal being the completion by each participant of a substantial and original piece of extended writing that will fully satisfy the senior project requirement and serve as a capstone for the major in English.

ENGL 3993 Directed Study
OPT No Aud, 1-4 credit(s), max credits 8; prereq One 3xxx, [English major or minor or [BIS or IDIM or ICP] with English concentration], [jr or sr], instr consent , dept consent , college consent ;
Instructor: STRAFF
Description: Guided individual study. Open to qualified students for one or more semesters. Before receiving permission to register, students submit to the English Undergraduate Studies office a signed contract using the CLA "Student/Faculty Learning Contract" available in all CLA offices.

ENGL 4041 Old Age in Film and Literature
A-F only, 3 credit(s);
Instructor: Luke, David B
Description: The course is primarily a thematic study of how and why aging shapes the central focus of a selection of modern verbal and visual texts. Readings will consist of Hemingway's _THE OLD MAN AND THE SEA_ , Wallace Stegner, THE SPECTATOR BIRD , Margaret Laurence, _THE STONE ANGEL_ , Gabriel Garcia Marquez, _LOVE IN THE TIME OF CHOLERA_ , Tracy Kidder, OLD FRIENDS (a prize-winning non-fiction account of life in a nursing home), and Betty Friedan, _THE OLD MAN AND THE SEA_. Among the mysteries we'll take up alongside Holmes's stories are Wilkie Collins's _Moonstone_ , Dickens's last and unfinished novel, _Edwin Drood_ , and L.T. Mead's _The Sorceress of the Strand_. Over the course of the term, we'll consider what gave rise to these texts as well as their effect on the popular imagination. Delving into these "crime scenes" will allow us to pursue the objective of the senior seminar and that is for class members to develop a thesis around one or more of the texts discussed, with the ultimate goal being the completion by each participant of a substantial and original piece of extended writing that will fully satisfy the senior project requirement and serve as a capstone for the major in English.

ENGL 4152 Nineteenth Century British Novel
A-F only, 3 credit(s);
Instructor: Luke, David B
Description: The course will study the cultural developments of the 19th-C English Novel from Mary Shelley's "Frankenstein" (1818) through Bronte, Dickens, Eliot and Hardy, to Joseph Conrad's "Heart of Darkness" (1898) in terms of aesthetic, psychological, philosophical, and social issues.
Style: 75% Lecture, 25% Discussion.
Grading: 20% mid exam, 30% final exam, 30% reports/papers, 10% class participation, 10% other evaluation, attendance
Exam Format: analysis of passages and/or essays

ENGL 4593 The African-American Novel
3 credit(s); Credit will not be granted if credit has been received for: AFRO 4593;
Instructor: Wright, John S
Description: AFRO /ENGL 4593: The African American Novel
Since romanticism and literary abolitionism converged in the 1850s, African American storytellers have discovered strategic uses for the modern novel -- making it both an ethical instrument and a vessel of ancestral traditions. Positioned initially more to social realism than to fantasy, romance, or surrealism, black American novelists have created a "committed" literature rooted in the view that the images and ideas of the novel are potential weapons in the struggle for social justice and social transformation. Yet an ever-ready countercurrent of comedies, satires, historical fables, and speculative fictions conjured up by African American novelists express their indebtedness also to philosophical and folk traditions that view literature as a ritualistic and healing exploration of human possibility and the transmendane -- of alternate worlds and worldviews. This course explores these African American novelistic traditions -- plot patterns, character types, settings, symbols, themes, movements, and mythologies. From the little known novelistic worlds of late nineteenth century preachers and journalists to Harlem Renaissance thrillers and urban picareques to internationally renowned neo-slave narratives, Black Arts magic realism, and philosophical metafictions from the late twentieth century, we will steer a course through the creative and critical torrents of the modern black imagination. Because these writers have been profoundly concerned with social and historical "truth", we will find that the materials and techniques of many African American novels, while dramatizing the conflicts and consciousness of the individual, attempt to "reconstruct" emblematically the experiences and historical consciousness of the group. To complement lectures, during regular class meetings we will rely periodically on filmed interviews or documentaries, as well as on a variety of informal small groups to help focus your attention on the texts and concepts at hand, to strengthen your abilities to articulate and share what you have learned, and to provide another gauge of how successfully you are mastering various elements of the course. The course is designed for advanced undergraduates and graduate students. Written assignments and grading options as follows: Critical Research Paper: Each student is required to write an 10-12 page typed research paper (15-20 pages for graduate students) examining the critical reception (original reviews, etc.), interpretive controversies, and current standing of one of the course novels Grades: Option A : 40% journal, 40% term paper, 10% one-page rationales, 10% class participation Option B : 30% short paper, 50% term paper, 10% rationales, 10% class participation

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
ENGL 4722 Alphabet to Internet: History of Writing Technologies
4 credit(s); prereq credit will not be granted if credit received for: EngL 3633;
Instructor: Hancher, Michael
Description: Technologies of writing -- the alphabet, handwriting, printing, and electronic text -- and their cognitive and social consequences. Topics include writing and memory; literacy, power, and control; printing, language, and national identity; alphabetization and other ways of ordering the world; secrecy, privacy, and publicity; typography, legibility, and design; theories of technological determinism; the future of reading after the internet. Readings will range from Homer and Plato to Wikipedia and Facebook.
Style: 40% Lecture, 60% Discussion.
Grading: 65% reports/papers, 10% in-class presentation, 15% class participation, 10% other evaluation. "Other Evaluation" is 10% for online comments on readings. The "basic course requirements" (mentioned in the University definitions of course grades) include regular attendance.

ENGL 5001 Introduction to Methods in Literary Studies
3 credit(s);
Instructor: Brown, Tony C.
Description: Student may contact the instructor or department for information.

ENGL 5020 Readings in Narrative
3 credit(s), max credits 9, 3 completions allowed; Credit will not be granted if credit has been received for: ENGL 3020;
Instructor: STAFF
Description: From fables, tales, and classics to picture books, graphic novels, and popular fiction, this course focuses on the history and development of children's literature in Britain and the United States. Along with reading, analyzing, and discussing the literary and visual elements of such works as Robinson Crusoe, Alice's Adventures in Wonderland, Where the Wild Things Are, and Harry Potter, we will also consider the ways in which social, cultural, political, and technological factors impact publishing for children. Underlying our examination of the literature will be the discussion of the concept of childhood, including an investigation of what constitutes childhood and the role of children, and how these have changed over time and across cultures. This course also provides a review of current scholarship and research in children's literature.

ENGL 5040 Theories of Film: Film & Fiction of African Director Ousmane Sembène
3 credit(s), max credits 9, 3 completions allowed; prereq Grad student or instr consent;
Instructor: Sugnet, Charles J
Description: Special Course in conjunction with Walker Art Center: Sembene. Sembene (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. You may be wondering whether this course can help you if you are interested in magazine and newspaper editing. Although you will be focusing on nonfiction texts, the skills you learn here will apply to other areas of editing. All editing requires that you appreciate the well-chosen word, the well-turned phrase, the perceptive and intelligent reader of other's writing. You will begin to appreciate the way authors put words together, use punctuation, and construct sentences and paragraphs. You will come to appreciate the well-chosen word, the well-turned phrase, the considered opinion, the persuasive argument.

ENGL 5090 Readings in Special Subjects
3-4 credit(s), max credits 9, 3 completions allowed; prereq grad student or instr consent; Credit will not be granted if credit has been received for: ENGL 5100;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

ENGL 5101 Introduction to Editing
3 credit(s), max credits 2, 1 completion allowed; prereq Grad student or instr consent;
Instructor: Daigre, Eric Stephen
Description: This course is an introduction to the theory and practice of teaching literature and creative writing at the college level. We will reflect on our teaching in light of our experiences, our readings, and our class discussions. We will model, practice, and report back on various teaching methods and activities, both in our discussions and interactive learning activities, and—beginning at mid-semester—through more structured
"teaching dialogues." We will apply the very skills we aim to impart to our undergraduate students--critical reading, writing, and thinking--to ourselves as we analyze our teaching through regular journal writings and final projects. This course is required for (and limited to) new graduate students in the English MA, MFA, and PhD programs.

ENGL 8090 Seminar in Special Subjects: Feeling Figures
3 credit(s), max credits 12, 4 completions allowed;
Instructor: Scandura, Jani
Description: Student may contact the instructor or department for information.

ENGL 8120 Seminar in Early Modern Literature and Culture: Britain & the Islamic Mediterranean: Early Modern
A-F only, 3 credit(s), max credits 12, 4 completions allowed;
Instructor: Metz, Nabil I
Description: Student may contact the instructor or department for information.

ENGL 8150 Seminar in Shakespeare: Performing Shakespeare
3 credit(s), max credits 9, 3 completions allowed;
Instructor: Schei, Katherine West
Description: From early modern London theatres to twenty-first-century American prisons, from appropriations of Macbeth in Bollywood (Macbpool) to an Aboriginal As You Like It, this course focuses on the performance history of Shakespeare, from the early modern period to the present. We will begin with the recent renewed interest in the material conditions of the early modern stage, and then move through select highlights of performance history of subsequent centuries, ending with contemporary performance of Shakespeare, particularly on the global stage. We will use five or six plays as examples for analyzing how the Shakespearian text is adapted and reshaped by subsequent generations of writers, playwrights, and audiences in different historical periods and geographical locales, and we will explore various reasons for those performances/adaptations according to historical, social, and cultural practices.

ENGL 8170 Seminar in 19th-Century British Literature and Culture: Dickens, Eliot, & Stevenson
3 credit(s), max credits 12, 4 completions allowed;
Instructor: Hirsch, Gordon D
Description: Student may contact the instructor or department for information.

English: Creative Writing
222 Lind Hall

ENGW 1102 Introduction to Fiction Writing
3 credit(s);
Instructor: STAFF
Description: Introductory course in the art and craft of reading and writing fiction. Students will read a variety of classic and contemporary fiction. Students will be responsible for composing original stories; writing comments on student work; workshop participation; attendance at a literary reading; and a final portfolio of fiction.
Style: 25% Lecture, 50% Discussion.
Exam Format: Revised stories/Final Portfolio

ENGW 1103 Introduction to Poetry Writing
3 credit(s);
Instructor: STAFF
Description: Introductory course in the art and craft of reading and writing poetry. Students will read and analyze contemporary and classic works and poetry while also constructing and revising their own poetry. Students will be responsible for crafting original poetry; commenting on student work; workshop participation; attendance at a literary reading; short presentations and/or papers; a final portfolio of poetry.
Style: 25% Lecture, 50% Discussion.
Exam Format: Revised poems/final portfolio

ENGW 1104 Introduction to Literary Nonfiction Writing
3 credit(s);
Instructor: STAFF
Description: Introductory course in the art and craft of reading and writing literary nonfiction. Students will read and analyze contemporary and classic nonfiction literary works (essays, memoir, biography, autobiography, short-shorts) and also construct and revise their own nonfiction pieces. Students will be responsible for crafting original works of nonfiction; commenting on student work; workshop participation; attendance at a literary reading; short papers and/or presentations; a final portfolio of nonfiction.
Style: 25% Lecture, 50% Discussion. workshop
Exam Format: Revised nonfiction/final portfolio of nonfiction

ENGW 3102 Intermediate Fiction Writing
3 credit(s); prereq 1101 or 1102 or dept consent;
Instructor: STAFF
Description: Intermediate course in the art and craft of reading/writing fiction for students with previous experience in fiction writing. Students will read and analyze contemporary and classic short fiction and also construct their own stories. Students will be responsible for written comments on student work; workshop participation; attendance at a literary reading; some short papers and presentations; and a final portfolio of short fiction.
Style: 25% Lecture, 50% Discussion. workshop
Grading: Revised fiction/final portfolio of fiction

ENGW 3102 Intermediate Fiction Writing
3 credit(s); prereq 1101 or 1102 or dept consent;
Instructor: Daniel, Judith A
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You will work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. The short story is a fascinating and very appealing form, particularly for American writers. Perhaps it is our history of discord, social upheaval, our restlessness and need for constant change that makes us so at home with a form that is short, intense, concentrated, and versatile. Whatever the reason, American writers of the past two hundred years have developed the short story form into a national treasure. From the wonderfully rambling descriptions of Washington Irving, whose dislocated citizen, Rip Van Winkle, slept through the Revolutionary War, to John Cheever's dislocated Neddy Merrill, who fast forwards into his own future, the American short story bristles with life and energy as it charts, more accurately than our history books, our world view, our lives, and our sense of who we are and what we are becoming.
Style: This is a printed correspondence section.
Grading: Your course grade will be based on your written assignments. 1, 2, 3, and 5 = 40% 4 and 6 (the first and final drafts of your short story) = 60% If you elect S/N grading, you must average at least a C- to earn a grade of S.
Exam Format: No exams

ENGW 3104 Intermediate Poetry Writing
3 credit(s); prereq 1101 or 1103 or dept consent;
Instructor: STAFF
Description: This intermediate level course is for writers who have some previous experience in writing poetry. The course will focus on craft and stylistic techniques using writing exercises and readings from a range of poets writing in different forms. The workshop portion of the class will be devoted to developing individual student work; student critiques; some short papers and presentations; attendance at one literary reading; final portfolio of poetry.
Style: 25% Lecture, 50% Discussion. workshop
Exam Format: Final portfolio of poems

ENGW 3106 Intermediate Literary Nonfiction Writing
3 credit(s); prereq 1101 or 1104 or dept consent;
Instructor: STAFF
Description: This intermediate level course is for students who
have some experience writing literary nonfiction: memoir, essay, biography, etc. Students will read and analyze contemporary and classic nonfiction works while also constructing and revising their own nonfiction writing. Written comments, workshop participation, some short papers and presentations, attendance at a literary reading and a final portfolio of nonfiction writing.

**Style:** 25% Lecture, 50% Discussion.

**Exam Format:** revised nonfiction/final portfolio of nonfiction writing.

**ENGW 3110 Topics in Creative Writing:** Journaling into Fiction 3 credit(s), max credits 9, 3 completions allowed; prereq 1101 or 1102 or 1103 or 1104 or dept consent

**Instructor:** Daniel, Judith A

**Description:** This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You will work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Journaling into Fiction, like all creative writing courses, can't be taught. I can start you on the way toward developing the craft of writing for a public audience, but your own love of reading and writing will be the most important impetus for your success. The other important thing you'll need is a passionate belief that you have something so exciting, interesting, and valuable to tell the rest of us that you will forge a pattern of words to make us pay attention. If you're not keeping a journal at the moment, start one today. This course is designed to work from your journals so if you're not keeping one, many of the suggestions and exercises won't make as much sense to you.

**Style:** This is a printed correspondence section.

**Grading:** 100% written homework.

**Exam Format:** No exams

**ENGW 3110 Topics in Creative Writing:** Journaling into Fiction 3 credit(s), max credits 9, 3 completions allowed; prereq 1101 or 1102 or 1103 or 1104 or dept consent

**Instructor:** Daniel, Judith A

**Description:** This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You will work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Journaling into Fiction, like all creative writing courses, can't be taught. I can start you on the way toward developing the craft of writing for a public audience, but your own love of reading and writing will be the most important impetus for your success. The other important thing you'll need is a passionate belief that you have something so exciting, interesting, and valuable to tell the rest of us that you will forge a pattern of words to make us pay attention. If you're not keeping a journal at the moment, start one today. This course is designed to work from your journals so if you're not keeping one, many of the suggestions and exercises won't make as much sense to you.

**Style:** This is a printed correspondence section.

**Grading:** 100% written homework.

**Exam Format:** No exams

**ENGW 3110 Topics in Creative Writing:** Journaling into Fiction 3 credit(s), max credits 9, 3 completions allowed; prereq 1101 or 1102 or 1103 or 1104 or dept consent

**Instructor:** Daniel, Judith A

**Description:** This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You will work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Journaling into Fiction, like all creative writing courses, can't be taught. I can start you on the way toward developing the craft of writing for a public audience, but your own love of reading and writing will be the most important impetus for your success. The other important thing you'll need is a passionate belief that you have something so exciting, interesting, and valuable to tell the rest of us that you will forge a pattern of words to make us pay attention. If you're not keeping a journal at the moment, start one today. This course is designed to work from your journals so if you're not keeping one, many of the suggestions and exercises won't make as much sense to you.

**Style:** This is a printed correspondence section.

**Grading:** 100% written homework.

**Exam Format:** No exams

**ENGW 3110 Topics in Creative Writing:** Journaling into Fiction 3 credit(s), max credits 9, 3 completions allowed; prereq 1101 or 1102 or 1103 or 1104 or dept consent

**Instructor:** Daniel, Judith A

**Description:** This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You will work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Journaling into Fiction, like all creative writing courses, can't be taught. I can start you on the way toward developing the craft of writing for a public audience, but your own love of reading and writing will be the most important impetus for your success. The other important thing you'll need is a passionate belief that you have something so exciting, interesting, and valuable to tell the rest of us that you will forge a pattern of words to make us pay attention. If you're not keeping a journal at the moment, start one today. This course is designed to work from your journals so if you're not keeping one, many of the suggestions and exercises won't make as much sense to you.

**Style:** This is a printed correspondence section.

**Grading:** 100% written homework.

**Exam Format:** No exams

**ENGW 3110 Topics in Creative Writing:** Journaling into Fiction 3 credit(s), max credits 9, 3 completions allowed; prereq 1101 or 1102 or 1103 or 1104 or dept consent

**Instructor:** Daniel, Judith A

**Description:** This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You will work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Journaling into Fiction, like all creative writing courses, can't be taught. I can start you on the way toward developing the craft of writing for a public audience, but your own love of reading and writing will be the most important impetus for your success. The other important thing you'll need is a passionate belief that you have something so exciting, interesting, and valuable to tell the rest of us that you will forge a pattern of words to make us pay attention. If you're not keeping a journal at the moment, start one today. This course is designed to work from your journals so if you're not keeping one, many of the suggestions and exercises won't make as much sense to you.

**Style:** This is a printed correspondence section.

**Grading:** 100% written homework.

**Exam Format:** No exams

**ENGW 3960W Writing Workshop for Majors:** Poetry A-F only, 4 credit(s); prereq Engl major, 6 cr of ENGW [including 3xxx appropriate for workshop genre], [jr or sr], major adviser approval, dept consent; Meets CLE req of Writing Intensive

**Instructor:** Walsh, Michael T

**Description:** Student may contact the instructor or department for information.

**ENGW 5102 Advanced Fiction Writing** 4 credit(s), max credits 8; prereq dept consent

**Instructor:** STAFF

**Description:** We will be reading and critiquing student fiction, including short stories and chapters from novels. I will be handing out guidelines for doing so at the first meeting. Members of the workshop should expect to have two, possibly three, manuscripts critiqued, each one approximately 15 to 20 pages in length, and we will also be reading and discussing short stories from an anthology, considering their formal properties. I will expect active participation from everyone, including written comments to be turned in to the week's contributors and to me.

**ENGW 5104 Advanced Poetry Writing** 4 credit(s), max credits 8; prereq dept consent

**Instructor:** STAFF

**Description:** Students will write and workshop original poetry. Readings from classic and contemporary poetry collections and anthologies. Students will be expected to write short critiques; short analytical reports on reading assignments; final portfolio of revised poetry.

**ENGW 5106 Advanced Literary Nonfiction Writing** 4 credit(s), max credits 8; prereq dept consent

**Instructor:** STAFF

**Description:** Students will write and critique original works of creative nonfiction. Students will be expected to write short critiques; short reports on assigned reading material; final portfolio to revise creative nonfiction.

**ENGW 5202 Journal and Memoir Writing** 3 credit(s);

**Instructor:** Galt, Margot Kriel

**Description:** This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You will work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Journaling into Fiction, like all creative writing courses, can't be taught. I can start you on the way toward developing the craft of writing for a public audience, but your own love of reading and writing will be the most important impetus for your success. The other important thing you'll need is a passionate belief that you have something so exciting, interesting, and valuable to tell the rest of us that you will forge a pattern of words to make us pay attention. If you're not keeping a journal at the moment, start one today. This course is designed to work from your journals so if you're not keeping one, many of the suggestions and exercises won't make as much sense to you.

**Style:** This is a printed correspondence section.

**Grading:** 100% written homework.

**Exam Format:** No exams

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
**ENGW 8150 Thesis Seminar: Fiction**
4 credit(s), max credits 8; prereq Creative writing MFA student, instr consent

Instructor: Fitzgerald, M. J

Description: Student may contact the instructor or department for information.

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**ENT 3005 Insect Biology**
4 credit(s); Meets CLE req of Biological Sciences

Instructor: Fallon, Ann M

Description: ENT 3005 covers the diverse biology of insects and their arthropod relatives, emphasizing the natural history of species that have had notable impacts on human activities. Topics range from insect-transmitted diseases, the silk industry, production of dyes and world trade based on the cochineal insect to evaluation of strategies for insect control. Basic biological processes, including metamorphosis and insecticide resistance will be covered. The course includes three lectures and a lab. In the lab, students will handle living and pinned specimens, and gain experience in the use of the dissection microscope. This course satisfies CLE requirements as a core course in the Biological Sciences.

Style: 70% Lecture, 30% Laboratory.

Grading: 10% mid exam, 15% final exam, 10% reports/papers, 10% special projects, 15% quizzes, 5% written homework, 10% additional semester exams, 5% in-class presentation, 20% laboratory evaluation. Optional assignments can be done to accumulate points representing up to 10% of the course grade

Exam Format: Short answer, multiple choice; each exam preceded by an in-class review session

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**ENT 3281 Veterinary Entomology**
A-F only, 3 credit(s);

Instructor: Moon, Roger Dean

Description: Flies in the barn? Fleas on Fido? What are they, from where do they come, and what can we do to keep them from bothering our animals and ourselves? A great variety of insects, ticks and mites occur around livestock and companion animals. Some of these insects are parasites that reduce animal health, comfort and productivity. Others cause no harm or are even beneficial. Students will learn how to identify the important species, learn about their biology and ecology, and learn about their effects on animals and people. Once understood, students will learn to develop sustainable pest management programs to reduce pest impacts. Emphasis is on problem identification and solution. Class meetings consist of instructor presentations, group activities, specimen identification, and demonstrations. Outside class, student teams identify and describe a real-world animal management facility, and then develop practical and economical pest management recommendations for their chosen facility. This course is designed for undergraduate biology, agriculture and prevet majors, and others who are interested in animal management and care.

Style: 60% Lecture, 20% Discussion, 20% Small Group Activities.

Grading: 30% final exam, 30% reports/papers, 30% quizzes, 10% attendance.

Exam Format: Two quizzes and final exam are by group testing, where students work out answers to take-home exam, and then work with semester group to compose group's answer. Grade is average of individual and group answers. Past students have liked group testing!
ENT 3925 Insects, Aquatic Habitats, and Pollution  
A-F only, 3 credit(s); prereq [[3005 or Biol 3407 or FW 2001], [jr or sr]] or instr consent;  
Instructor: Ferrington Jr, Leonard Charles  
Description: This course will focus on the effects differing classes of pollutants have on the biology, ecology and community structure of insects that are aquatic. It is intended for (1)upper level undergraduates with interests in ecology, limnology, natural resources management or conservation, and (2)first-year graduate students involved in research projects in Entomology, Water Resources, Fisheries and Wildlife.  
Conservation and/or Ecology and Evolutionary Biology. Topics to be covered will begin with a basic introduction to groups of insects that are aquatic and concepts related to their life-cycle dynamics, trophic guilds and community structure. Coverage will be given to hypotheses that attempt to explain community structure in both lotic (streams, rivers) and lentic (ponds, lake, reservoirs) settings. These lectures will be followed by lectures on organic pollution/eutrophication, heavy metal pollution, runoff and siltation, acidification, and thermal pollution. Changes in aquatic insect community structure will be discussed after reading an original literature source for each class of pollutant. Concluding lectures will deal with designing and maintaining biological monitoring networks to aid in decisions for water quality management. Copies of original data will be provided and hands-on, computer-based analyses of the data will give students experience in manipulating data and interpreting results. Weekly assignments will be based on data provided. The course will be web enhanced.  
Style: 75% Lecture, 25% Discussion.  
Grading: 20% mid exam, 30% final exam, 10% laboratory evaluation, 20% problem solving, 20% other evaluation. Completed design for a field research project  
Exam Format: Combination of multiple choice and essay

ENT 5041 Insect Ecology  
3 credit(s); prereq Biol 5041 or EBB 5122 or instr consent;  
Instructor: Andow, David  
Description: This course is an introduction to the diseases of pest and beneficial insects. The emphasis is on the biotechnology of entomopathogenic microbes and their application to microbial control of pest insects. The student will become familiar with the principles of insect pathology and the mechanisms of microbial pathogenesis. The textbook is "Insect Pathology" by Y. Tanada and H.K. Kaye. In addition, the student will read and critically analyze current papers. Oral presentations will be used to summarize these papers for the class. The students will also prepare a report on an entomopathogen of their choice. The objective of this report is to identify the strengths and weaknesses of the pathogen and the prospects for its implementation as a microbial insecticide or a biological control agent. Target audience: advanced undergraduate students in biology; graduate students in entomology, microbiology or ecology.  
Style: 70% Lecture, 30% Discussion.  
Grading: 20% mid exam, 30% final exam, 30% reports/papers, 20% in-class presentation.  
Exam Format: Essay

ENT 5051 Scientific Illustration of Insects  
3 credit(s);  
Instructor: Holzenthal, Ralph W  
Description: Students may contact the instructor or department for information.

ENT 5051 Scientific Communication and Ethics  
S-N only, 1 credit(s);  
Instructor: Fallon, Ann M  
Description: Students may contact the instructor or department for information.

ENT 5081 Insects, Aquatic Habitats, and Pollution  
A-F only, 3 credit(s); prereq [3005, Biol 3407, FW 2001, EEB 4601] or instr consent;  
Instructor: Ferrington Jr, Leonard Charles  
Description: This course will focus on the effects differing classes of pollutants have on the biology, ecology and community structure of insects that are aquatic. It is intended for (1) upper level undergraduates with interests in ecology, limnology, natural resources management or conservation, and (2) first-year graduate students involved in research projects in Entomology, Water Resources, Fisheries and Wildlife, Conservation and/or Ecology and Evolutionary Biology. Topics to be covered will begin with a basic introduction to groups of insects that are aquatic and concepts related to their life-cycle dynamics, trophic guilds and community structure. Coverage will be given to hypotheses that attempt to explain community structure in both lotic (streams, rivers) and lentic (ponds, lake, reservoirs) settings. These lectures will be followed by lectures on organic pollution/eutrophication, heavy metal pollution, runoff and siltation, acidification, and thermal pollution. Changes in aquatic insect community structure will be discussed after reading an original literature source for each class of pollutant. Concluding lectures will deal with designing and maintaining biological monitoring networks to aid in decisions for water quality management. Copies of original data will be provided and hands-on, computer-based analyses of the data will give students experience in manipulating data and interpreting results. Weekly assignments will be based on data provided.  
Style: 75% Lecture, 25% Discussion.  
Grading: 25% mid exam, 25% final exam, 25% reports/papers, 25% class participation.  
Exam Format: Combination of multiple choice and essay
ENT 8594 Research in Entomology  
S-N only, 1-16 credit(s), max credits 36, 6 completions allowed;  
Instructor: Fallon, Ann M  
Description: Student may contact the instructor or department for information.

ENT 8594 Research in Entomology  
S-N only, 1-16 credit(s), max credits 36, 6 completions allowed;  
Instructor: Weller, Susan J.  
Description: Student may contact the instructor or department for information.

ENT 8594 Research in Entomology  
S-N only, 1-16 credit(s), max credits 36, 6 completions allowed;  
Instructor: Krischik, Vera Aber  
Description: Student may contact the instructor or department for information.

ENT 8594 Research in Entomology  
S-N only, 1-16 credit(s), max credits 36, 6 completions allowed;  
Instructor: Mesce, Karen A  
Description: Student may contact the instructor or department for information.

ENTR 6041 New Product Design and Business Development  
A-F only, 2-4 credit(s), max credits 10, 3 completions allowed;  
Instructor: Ferrington Jr, Leonard Charles  
Description: See the course web site for a complete description.

ENTR 6020 Business Formation  
A-F only, 1-4 credit(s); prereq MBA student;  
Instructor: STAFF  
Description: See the course web site for a complete description.

ENTR 6037 Corporate Venturing  
A-F only, 2 credit(s); prereq MBA student;  
Instructor: Nord, Tobin Lawrence  
Description: See the course web site for a complete description.

Entreprenuership  
3-306 Carlson School of Management

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
Environmental Sciences, Policy, and Management

ESPM 1001 Freshmen Orientation to Environmental Sciences, Policy, and Management
A-F only, 1 credit(s);
Instructor: Ferrington Jr, Leonard Charles
Description: Student may contact the instructor or department for information.

ESPM 1002 Transfer Orientation Seminar
A-F only, 1 credit(s);
Instructor: STAFF
Description: This required course provides orientation and guidance in planning for study in transferring into the ESPM major. Course activities will describe careers, tracks within ESPM, and internships. Skill building provided includes information on searching for jobs and internships and writing of resumes.
Style: 60% Lecture, 40% Discussion.
Grading: 50% reports/papers, 50% other evaluation. Attendance and participation

ESPM 1011 Issues in the Environment
3 credit(s); Meets CLE req of Environment;
Instructor: Blinn, Charles R
Description: This course is an introductory, interdisciplinary survey of environmental issues that explores the connections between environmental sciences, policy, and management and personal, professional, and civic responsibility. On Mondays and Wednesdays, the instructors and a variety of guest speakers will introduce students to topics of current environmental concern, and on Fridays students will discuss these issues in small groups. The course emphasizes the social, political, and economic factors involved in environmental decision-making, and lectures are supplemented with videos and a course web site. The overarching question the course asks is: What should a sustainable society look like, and how should we attempt to achieve it? The specific topics it explores include: population and consumption; energy, climate change, and waste; land use (soils, forests, agriculture, water, and wetlands); and biodiversity (fisheries, wildlife, and endangered and invasive species). The course is intended for first-year students majoring in Environmental Sciences, Policy, and Management and for all students who are interested in the subject and wish to satisfy the University’s liberal education requirements for Environment Theme and Citizenship and Public Ethics Theme. The course has no prerequisites and is suitable for students with little or no scientific background.
Style: 60% Lecture, 40% Discussion.
Grading: 15% final exam, 25% reports/papers, 35% special projects, 15% quizzes, 10% class participation.
Exam Format: Varies

ESPM 1011 Issues in the Environment
3 credit(s); Meets CLE req of Environment;
Instructor: Billmark, Kaycie A
Description: This course is an introductory, interdisciplinary survey of environmental issues that explores the connections between environmental sciences, policy, and management and personal, professional, and civic responsibility. On Mondays and Wednesdays, the instructors and a variety of guest speakers will introduce students to topics of current environmental concern, and on Fridays students will discuss these issues in small groups. The course emphasizes the social, political, and economic factors involved in environmental decision-making, and lectures are supplemented with videos and a course web site. The overarching question the course asks is: What should a sustainable society look like, and how should we attempt to achieve it? The specific topics it explores include: population and consumption; energy, climate change, and waste; land use (soils, forests, agriculture, water, and wetlands); and biodiversity (fisheries, wildlife, and endangered and invasive species). The course is intended for first-year students majoring in Environmental Sciences, Policy, and Management and for all students who are interested in the subject and wish to satisfy the University’s liberal education requirements for Environment Theme and Citizenship and Public Ethics Theme. The course has no prerequisites and is suitable for students with little or no scientific background.
Style: 60% Lecture, 40% Discussion.
Grading: 15% final exam, 25% reports/papers, 35% special projects, 15% quizzes, 10% class participation.
Exam Format: Varies

ESPM 1425 The Atmosphere
A-F only, 4 credit(s); prereq High school algebra; Credit will not be granted if credit has been received for: GEOG 1425; Meets CLE req of Environment; meets CLE req of Physical Sciences;
Instructor: Klink, Katherine
Description: Weather is part of our everyday lives, sometimes memorably so, such as when we experience snowstorms, hurricanes, tornadoes, or heat waves. Our society also is increasingly concerned about environmental issues such as ozone depletion and climate change, which have a fundamental atmospheric component. What do we understand about how the atmosphere works? How might our own actions affect weather and climate? Our goals for this course are to: 1) learn about weather and climate, including the physical laws that govern the atmosphere, the current tools and technologies used to study the atmosphere, and to interpret weather and climate data; 2) experience and gain insight into the nature of science and scientific uncertainty; 3) become better able to evaluate critically scientific questions and claims, especially those concerning the human impacts on the atmosphere; 4) understand the limits to what we know about weather, climate, and climate change; and 5) reflect on our roles and responsibilities as agents of local and global environmental change, especially as related to the atmosphere. ? Goals 1-3 are directly related to the objectives of the Physical Science Core: to learn about key basic concepts and consequences regarding the natural laws, processes, and properties of matter and energy; to use basic research methods such as observation, hypothesis formation/testing, and/or computer simulations; understanding the limits and uncertainties associated with these methods; and to become more informed about the scientific basis of claims about climate and environmental change. ? Goals 3-5 are directly related to the objectives of the Environment Theme: to inform your understanding of the interrelationships between the non-human environment (e.g., the atmosphere and human society); to introduce you to important underlying scientific principles within environmental issues, particularly as related to the atmosphere; to consider the possibilities and limitations of various technologies, practices, and policies aimed at adapting to, and/or mitigating, the potentially negative impacts of global climate change; and to reflect on our ethical commitments as global citizens on the issue of climate/environmental change. Questions we will try to answer include: What makes the wind blow? Why don’t all clouds produce rain? What causes thunderstorms and tornadoes? How do satellites work? How does El Niño affect the weather in North America? How do you make a weather forecast? Are human activities really affecting the atmosphere? What is the greenhouse effect, and should we be concerned about it? What do we know about climate change? This course fulfills the CLE Physical Science with Lab Core, and the Environment Theme. Prerequisites: Students are expected to be familiar with pre-college algebra (at the level of the standard University entrance requirement).
Style: 60% Lecture, 10% Discussion, 30% Laboratory.
Grading: 25% final exam, 30% additional semester exams, 45% laboratory evaluation.
Exam Format: multiple choice, short answer

ESPM 1901 Topics: Freshman Seminar: Human Impact on the Environment
3 credit(s); prereq Fr; Meets CLE req of Environment;
Instructor: Bell, Jay
Description: Student may contact the instructor or department for information.
for information.

ESPM 1905 Freshman Seminar: State of the World 2010
1 credit(s); prereq BIOL 9001; 1 completion allowed;
Instructor: Cooper, Terence H
Description: Student may contact the instructor or department for information.

ESPM 2401 Environmental Education/Interpretation
3 credit(s); prereq Soph;
Instructor: Carlson, Stephan Paul
Description: Class Description: This course will take a foundational view of Environmental Education/Naturalist: its history, theories, methodologies, and practical skills for outdoor teaching with the aim to make students aware of the strengths and weaknesses of the Environmental Education field. Upon completion of this course student should: 1. Know the historic roots of environmental education 2. Develop an understanding of interpretation/naturalist 3. Understand principles of environmental education. 4. Use basic ecology with real world applications for teaching. 5. Understand relationships among social and natural systems. 6. Apply investigative skills to solve EE problems. 7. Apply Awareness to Action, Environmental Education model. 8. Use parks and other natural/man-made settings to teach EE. 9. Apply Environmental Education to MN’s Graduation Standards. 10. Understand/Apply learning theory to teaching informal EE
Style: 60% Lecture, 40% Discussion.
Grading: 20% mid exam, 20% final exam, 20% reports/papers, 15% special projects, 5% quizzes, 15% in-class presentation, 5% class participation.
Exam Format: short answers, fill in the blank, matching, multiple choice essay and true/false

ESPM 3000 Seminar on Current Issues for ESPM: Essentials of Eny Ldshp-Do You have what it takes?
A-F only, 1 credit(s), max credits 6, 6 completions allowed; prereq Jr;
Instructor: Stafford, Susan G
Description: Student may contact the instructor or department for information.

ESPM 3011W Ethics in Natural Resources
3 credit(s); Meets CLE req of Writing Intensive;
Instructor: Nerbonne, Julia Frost
Description: Student may contact the instructor or department for information.

ESPM 3012 Statistical Methods for Environmental Scientists and Managers
A-F only, 4 credit(s); prereq Two yrs of high school math;
Credit will not be granted if credit has been received for: STAT 3011; Meets CLE req of Mathematical Thinking;
Instructor: Burk, Thomas Edward
Description: This course focuses on both the foundations of statistical methods (the mathematical principles that underlie the methods) and the application of those methods. It is unlike the similar courses in the emphasis it places on context. Methodological approaches will be motivated using applications from environmental science and management. With that as background, we will be able to more meaningfully study the principles, theory and foundations of the methods, including important theorems and proofs. The end result will be that you will possess i) a more complete understanding of assumptions made in deriving methods (and therefore the limitations of those methods) and ii) a better ability to extend and adapt methods as particular problems require it. An early example of this is the emphasis placed on randomized theory as it leads us to proper approaches for data collection. A second notable difference between this and similar courses is the emphasis on regression modeling for description and prediction using observational data as opposed to the confirmatory objectives of analysis of variance for designed experiments. We will cover regression very early in the course as a means of describing bivariate data and return to the topic in more detail once we have established the foundational principles that underlie our ability to do more than describe with regression. Reports on studies applying statistical methods abound in the popular press, including newspapers. We will draw on such studies regularly to initially illustrate proper, and often, unfortunately, improper application of methodology and the drawing of conclusions; we can then move on to the more complex challenges we face with data from the fields of environmental science and management.

ESPM 3101 Conservation of Plant Biodiversity
A-F only, 3 credit(s); prereq BIOL 1001 or BIOL 1009; Credit will not be granted if credit has been received for: ESPM 5101;
Instructor: David, Andrew J
Description: Student may contact the instructor or department for information.

ESPM 3108 Ecology of Managed Systems
3 credit(s); prereq BIOL 1001 or BIOL 1009 or HORT 1001 or instr consent;
Credit will not be granted if credit has been received for: ESPM 5108; Meets CLE req of Environment;
Instructor: Galatowitsch, Susan M
Description: Student may contact the instructor or department for information.

ESPM 3245 Sustainable Land Use Planning and Policy
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: ESPM 5245; Meets CLE req of Environment;
Instructor: Davenport, Mae Allen
Description: Student may contact the instructor or department for information.

ESPM 3251 Natural Resources in Sustainable International Development
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: ESPM 5251; Meets CLE req of Global Perspectives;
Instructor: Current, Dean Alan
Description: International perspectives on resource use in developing countries. Integration of natural resource issues with social, economic, and policy considerations. Overviews of agriculture, forestry, agroforestry, non-timber forest products, water resources, certification, and development issues. Latin American focus but also includes case studies from other developing regions of the world.
Style: 40% Lecture, 25% Discussion, 15% Student Presentation, 20% Guest Speakers.
Grading: 35% in-class presentation, 5% class participation. 60% exams

ESPM 3261 Economics and Natural Resources Management
A-F only, 4 credit(s); Credit will not be granted if credit has been received for: ESPM 5261; Meets CLE req of Environment; meets CLE req of Social Sciences;
Instructor: Kilgore, Mike
Description: This course is designed to give students an understanding of and appreciation for the role economics plays in the management, use, and protection of natural resources. Its focus is to build student capacity to think critically about natural resources using economic decision-making criteria. The course emphasizes the practical application of economic principles and concepts to natural resource problems. The first third of the course focuses on developing an understanding of basic microeconomic concepts. The middle third of the course covers the tools and techniques used to value natural resources and evaluate natural resource projects using economic and financial criteria. The last third of the course extends these economic concepts, tools, and techniques to the management of various natural resources (e.g., forests, water). Prerequisite math skills for this course are limited to solving problems using algebra.
Style: 80% Lecture, 5% Small Group Activities, 15% Guest Speakers.
Grading: 33% mid exam, 25% final exam, 9% quizzes, 33% written homework.

ESPM 3271 Environmental Policy, Law, and Human Behavior
A-F only, 3 credit(s); Meets CLE req of Civic Life and Ethics; meets CLE req of Social Sciences;
Instructor: Enzler, Sherry Anne
Description: For effective environmental change, we need to understand how human behavior, policy, and governance interact. Can policy become an effective tool for modifying human behavior to achieve environmental change? How do we reduce our environmental footprint with new laws while maintaining human wellbeing? How do human beings respond to laws and policy initiatives resulting in positive changes or unexpected consequences? You will learn the key concepts of government, law, as well as the philosophy and pragmatic operation of democracy. At the same time, you will investigate how law sets the course for influencing human attitudes, values, behaviors and social organization for environmental change. Lectures provide the theoretical concepts and international examples of laws and human behavior based on specific environmental issues. The focus is on international cases, with a few U.S. comparative cases, from the local to global scales. Guest speakers and class discussion provide an opportunity to apply the concepts to interpret concrete examples. To understand the material in action, each student will be involved with a service-learning project, with groups working on global warming, environmental laws, and human behavior.
Style: 20% Lecture, 20% Discussion. In class exercises, service learning
Grading: 10% final exam, 10% reports/papers, 80% quizzes.
Exam Format: short answer and essay

ESPM 3271 Environmental Policy, Law, and Human Behavior
A-F only, 3 credit(s); Meets CLE req of Civic Life and Ethics; meets CLE req of Social Sciences;
Instructor: Nelson, Kristen C
Description: For effective environmental change, we need to understand how human behavior, policy, and governance interact. Can policy become an effective tool for modifying human behavior to achieve environmental change? How do we reduce our environmental footprint with new laws while maintaining human wellbeing? How do human beings respond to laws and policy initiatives resulting in positive changes or unexpected consequences? You will learn the key concepts of government, law, as well as the philosophy and pragmatic operation of democracy. At the same time, you will investigate how law sets the course for influencing human attitudes, values, behaviors and social organization for environmental change. Lectures provide the theoretical concepts and international examples of laws and human behavior based on specific environmental issues. The focus is on international cases, with a few U.S. comparative cases, from the local to global scales. Guest speakers and class discussion provide an opportunity to apply the concepts to interpret concrete examples. To understand the material in action, each student will be involved with a service-learning project, with groups working on global warming, environmental laws, and human behavior.
Style: 20% Lecture, 20% Discussion. In class exercises, service learning
Grading: 10% final exam, 10% reports/papers, 80% quizzes.
Exam Format: short answer and essay

ESPM 3425 Atmospheric Composition: From Smog to Climate Change
A-F only, 3 credit(s); prerequisite CHEM 1021, CHEM 1022, PHYS 1011, MATH 1142, MATH 1271, MATH 1281 or equiv; or instr consent; ESPM 1425 recommended; Credit will not be granted if credit has been received for: GEO 3425;
Instructor: Millot, Dylan Baird
Description: What is the composition of the atmosphere, and why is it changing? In this class we'll examine the processes governing the makeup of Earth's atmosphere and their implications for air pollution, climate, and human welfare. Evolution of the atmosphere; atmospheric structure and transport; biogeochemical cycles of carbon, nitrogen, oxygen, mercury; the greenhouse effect; aerosols; stratospheric ozone loss; oxidizing power of the atmosphere; smog. The movie below shows the 2009 ozone hole over Antarctica [credit: NASA]. Prerequisites: CHEM 1021/1022, PHYS 1011, MATH 1271, or equivalents, or instructor consent.

ESPM 3603 Environmental Life Cycle Analysis
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: MGMT 3603;
Instructor: Hill, Jason David
Description: Student may contact the instructor or department for information.

ESPM 3604 Environmental Management Systems and Strategy
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: ESPM 5604;
Instructor: Smith, Tim
Description: Environmental threats and opportunities are becoming increasingly important for business. Environmental problems such as climate change, ozone depletion and loss of biodiversity have become important national and international issues. Governments continue to adopt regulations and standards which influence industrial activity on a daily basis. Banks, insurance companies and other investors have become conscious of liabilities imposed by improper handling of materials and contamination of property. Suppliers and customers are also setting their own requirements. With the advent of the Business Charter on Sustainable Development, the European Environmental Management and Audit Scheme and the ISO series of environmental standards, companies are responding to these challenges by establishing structured environmental management systems. This course provides a theoretical and practical framework for understanding and evaluating environmental impacts within business scenarios. The course enables students to effectively assess the strategic and tactical processes associated with environmental, business and policy trends facing today's organizations.
Style: 60% Lecture, 20% Discussion. student presentations and group projects
Grading: 20% reports/papers, 40% special projects, 10% quizzes, 10% class participation, 20% other evaluation.
mid-semester exam(s)

ESPM 3606W Pollution Prevention: Principles, Technologies, and Practices
A-F only, 3 credit(s); prerequisite CHEM 1011 or [CHEM 1015, CHEM 1017] or instr consent; Credit will not be granted if credit has been received for: ESPM 5606; Meets CLE req of Writing Intensive;
Instructor: McComas, Cindy Ann
Description: Industrial facilities use raw materials and resources and emit pollutants and wastes. The raw materials and resources used are converted into various forms of pollution through industrial operations. Both purchasing the input materials used and treating and disposing of the pollutants and wastes generated represent costs to a company. In this class, the methods by which a company can reduce both input materials and pollution and wastes are covered including better management, process and product modification, use of alternative materials and redirecting materials and energy flows. The course is comprised of (1) Overview of industrial emissions and the technologies to treat and reduce them, (2) Pollution prevention planning and implementation, (3) A field trip to a company, (4) Presentations on the industrial pollution prevention practices and (5) Group assessment project.
Style: 60% Lecture, 20% Discussion. Student presentations and group work
Grading: 20% mid exam, 20% reports/papers, 50% special projects, 10% class participation.

ESPM 3612W Soil and Environmental Biology
3 credit(s); prerequisite BIOL 1008 or equiv, CHEM 1021 or equiv; 2125 recommended; Meets CLE req of Writing Intensive;
Instructor: Allan, Deborah L
Description: Student may contact the instructor or department for information.

ESPM 4011W Problem Solving for Environmental Change
A-F only, 4 credit(s); prerequisite ESPM sr; Meets CLE req of
Writing Intensive;
Instructor: Nelson, Kristen C
Description: Each year students in ESPM 4041W work with a client to perform "real world" projects involving land use planning. Students work in groups of four to six people. The group's goal is to gather data relevant to the client's objectives, analyze the data and, based on the data, make recommendations for future use. Students will produce a final written report for the client, develop a formal presentation describing the findings, and present their findings to the client group.

ESPM 4061W Water Quality and Natural Resources 3 credit(s); Meets CLE req of Writing Intensive;
Instructor: Perry, Jim A
Description: The science and art of water quality decision making, with a strong international focus. We discuss ecology of aquatic ecosystems, how they are valuable to society, how they are changed by landscape management, and how we make informed decisions about that management. We rely heavily on case studies, impaired waters and the TMDL process, and student engagement in simulating water quality decision making.
Style: 30% Lecture, 30% Discussion, 25% Guest Speakers.
Grading: 20% mid exam, 20% final exam, 20% special projects, 20% in-class presentation, 20% class participation.

ESPM 4093 Directed Study 1-7 credit(s), max credits 20, 20 completions allowed; prereq instr consent;
Instructor: Waterhouse, Beth E
Description: Student may contact the instructor or department for information.

ESPM 4093 Directed Study 1-7 credit(s), max credits 20, 20 completions allowed; prereq instr consent;
Instructor: Nelson, Kristen C
Description: Student may contact the instructor or department for information.

ESPM 4093 Directed Study 1-7 credit(s), max credits 20, 20 completions allowed; prereq instr consent;
Instructor: Cooper, Terence H
Description: Student may contact the instructor or department for information.

ESPM 4093 Directed Study 1-7 credit(s), max credits 20, 20 completions allowed; prereq instr consent;
Instructor: Bleser, Claire Serieysso
Description: Student may contact the instructor or department for information.

ESPM 4094 Directed Research 1-7 credit(s), max credits 7, 7 completions allowed; prereq instr consent;
Instructor: Blaser, Claire Serieysso
Description: Student may contact the instructor or department for information.

ESPM 4094 Directed Research 1-7 credit(s), max credits 7, 7 completions allowed; prereq instr consent
Instructor: Cooper, Terence H
Description: Student may contact the instructor or department for information.

ESPM 4096 Professional Experience Program: Internship A-F only, 1 credit(s), max credits 6, 6 completions allowed; prereq CFANS undergrad, instr consent, completed internship contract;
Instructor: Cooper, Terence H
Description: Student may contact the instructor or department for information.

ESPM 4200H Honors Seminar A-F only, 1 credit(s); prereq ENR upper div honors, instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

ESPM 4216 Contaminant Hydrology A-F only, 2 credit(s);
Instructor: Gupta, Satish C
Description: Student may contact the instructor or department for information.

ESPM 4242 Methods for Environmental and Natural Resource Policy Analysis A-F only, 3 credit(s); prereq [3241 or equiv], [3261 or equiv]; Credit will not be granted if credit has been received for: ESPM 5242;
Instructor: Kilgore, Mike
Description: This course introduces students to methods and processes used to analyze environmental and natural resource policies and programs. Its emphasis is on the practical application of policy analysis to address contemporary natural resource problems. Students will learn how to codevelop management alternatives, recognize the politically-charged environment within which decisions are made, and to design and protect these resources. Specific student learning objectives of the course are to: 1) Develop an understanding of the role and responsibilities of the policy scientist/analyst in advancing knowledge and practice in environmental and natural resource decision-making. 2) Differentiate among methods used to synthesize knowledge, forecast results, assess programs, and evaluate outcomes of environmental and natural resource policies. 3) Gain an appreciation for the politics of environmental and natural resource policy analysis. 4) Be able to identify the basic components of a policy analysis study.
Style: 25% Lecture, 25% Discussion, 15% Small Group Activities, 5% Student Presentation, 25% Demonstration, 5% Guest Speakers.
Grading: 20% reports/papers, 40% special projects, 10% reflection paper, 10% in-class presentation, 20% other evaluation. Other evaluation includes 10% for presentations, and 10% for peer critiques of reports.

ESPM 4295W GIS in Environmental Science and Management A-F only, 4 credit(s); prereq FR 3131 or instr consent; Meets CLE req of Writing Intensive;
Instructor: Jenks, Andrew Carl
Description: Application of spatial data inventory/analysis in complex environmental planning problems. Spatial data collection, database development methods including GPS, DLG, TIGER, NWI data, spatial analysis. Topics identified by non-University partners.

ESPM 4601 Soils and Pollution 3 credit(s); prereq [2125, [Chem 1021 or equiv], [Phys 1042 or equiv]] or instr consent; 3416 recommended;
Instructor: Bloom, Paul Ronald
Description: Student may contact the instructor or department for information.

ESPM 4608 Bioremediation A-F only, 3 credit(s); prereq [BIOL 1001 or BIOL 1009], CHEM 1011; Credit will not be granted if credit has been received for: ESPM 5608;
Instructor: Schilling, Jonathan Scott
Description: Bioremediation is the use of organisms, often microbes or their enzymes, to detoxify contaminants either in the field (in situ) or in containment facilities (ex situ). This is a
ESPM 4801H Honors Research  
A-F only, 2 credit(s); prereq ENR upper div honors, instr consent;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.  

ESPM 4802H Honors Research  
A-F only, 2 credit(s); prereq ENR upper div honors, instr consent;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.  

ESPM 5019 Business, Natural Environment, and Global Economy  
A-F only, 2 credit(s); Credit will not be granted if credit has been received for: MGMT 5019;  
Instructor: Marcus, Alfred A  
Description: Student may contact the instructor or department for information.  

ESPM 5061 Water Quality and Natural Resources  
3 credit(s); prereq Grad student or instr consent;  
Instructor: Perry, Jim A  
Description: Review and discussion of recent literature in field complements the material covered in ESPM 4061; co-attendance is required. 4061 also addresses the science and art of water quality decision making, with a strong international focus. We discuss ecology of aquatic ecosystems, how they are valuable to society, how they are changed by landscape management, and how we make informed decisions about that management. We rely heavily on case studies, impaired waters and the TMDL process, and student engagement in simulating water quality decision making. Workload is in addition to that listed for ESPM 4061W.  
Style: 10% Lecture, 60% Discussion, 30% Student Presentation.  
Grading: 20% mid exam, 20% final exam, 30% in-class presentation, 30% class participation.  

ESPM 5101 Conservation of Plant Biodiversity  
A-F only, 3 credit(s); prereq Grad student or instr consent;  
Credit will not be granted if credit has been received for: ESPM 3101;  
Instructor: David, Andrew J  
Description: Student may contact the instructor or department for information.  

ESPM 5108 Ecology of Managed Systems  
A-F only, 4 credit(s); prereq Sr or grad student; Credit will not be granted if credit has been received for: ESPM 3108;  
Instructor: Galatowitsch, Susan M  
Description: Student may contact the instructor or department for information.  

ESPM 5242 Methods for Natural Resource and Environmental Policy  
A-F only, 3 credit(s); prereq [3241 or equiv], [3261 or equiv], [sr or grad student]; Credit will not be granted if credit has been received for: ESPM 4242;  
Instructor: Kilgore, Mike  
Description: This course will introduce students to methods and processes used to analyze environmental and natural resource policies and programs. Its emphasis is on the practical application of policy analysis principles and concepts to address contemporary natural resource problems, recognizing the politically-charged environment within which decisions over the use, management, and protection of these resources occur. Specific student learning objectives of the course are to: 1) Develop an understanding of the role and responsibilities of the policy scientist/analyst in advancing knowledge and practice in environmental and natural resource decision-making. 2) Differentiate among methods used to synthesize knowledge, forecast results, observe programs, and evaluate outcomes of environmental and natural resource policies. 3) Gain an appreciation for the politics of environmental and natural resource policy analysis. 4) Be able to identify the basic components of a policy analysis study.  
Exam Format: Short Answer  

ESPM 5245 Sustainable Land Use Planning and Policy  
A-F only, 3 credit(s); prereq Grad student or instr consent;  
Credit will not be granted if credit has been received for: ESPM 3245;  
Instructor: Davenport, Mae Allen  
Description: Student may contact the instructor or department for information.  

ESPM 5251 Natural Resources in Sustainable International Development  
A-F only, 3 credit(s); prereq Grad student or instr consent;  
Credit will not be granted if credit has been received for: ESPM 3251;  
Instructor: Current, Dean Alan  
Description: International perspectives on resource use in developing countries. Integration of natural resource issues with social, economic, and policy considerations. Overviews of agriculture, forestry, agroforestry, non-timber forest products, water resources, certification, and development issues. Latin American focus but also includes case studies from other developing regions of the world.  
Style: 40% Lecture, 25% Discussion, 15% Student Presentation, 20% Guest Speakers.  
Grading: 20% reports/papers, 20% in-class presentation, 10% class participation. 50% exams  

ESPM 5261 Economics and Natural Resources Management  
A-F only, 4 credit(s); prereq Grad student or instr consent;  
Credit will not be granted if credit has been received for: ESPM 3261;  
Instructor: Kilgore, Mike  
Description: This course is designed to give students an understanding of and appreciation for the role economics plays in the management, use, and protection of natural resources. Its focus is to build student capacity to think critically about natural resources using economic decision-making criteria. The course emphasizes the practical application of economic principles and concepts to natural resource problems. The first third of the course focuses on developing an understanding of basic microeconomic concepts. The middle third of the course covers the tools and techniques used to value natural resources and evaluate natural resource projects using economic and financial criteria. The last third of the course extends these economic concepts, tools, and techniques to the management of various natural resources (e.g., forests, water). Prerequisite math skills for this course are limited to solving problems using algebra.  
Style: 80% Lecture, 5% Small Group Activities, 15% Guest Speakers.  
Grading: 33% mid exam, 25% final exam, 9% quizzes, 33% written homework.  

ESPM 5295 GIS in Environmental Science and Management  
A-F only, 4 credit(s); prereq Grad student or instr consent;  
Instructor: Jenks, Andrew Carl  
Description:
**ESPM 5402 Biometeorology**
3 credit(s);  prerequisite MATH 1271, PHYS 1201, STAT 3011, [Grad or instr consent]; Instructor: Griffith, Timothy John
Description: This course will introduce students to the principles of atmospheric science and its application to environmental health. The course will cover topics such as air pollution, climate change, and the impact of meteorological events on human health.

**ESPM 5555 Wetland Soils**
A-F only, 3 credit(s); prerequisite 1125 or 2125 or equiv or instr consent; Concurrent registration is required (or allowed) in 4511 recommended. Credit will not be granted if credit has been received for: SOIL 5555; Instructor: Anderson, James L
Description: This course will provide an overview of wetland soils, including their characteristics, formation, and management. Students will learn about the role of wetlands in the global carbon cycle and their importance for biodiversity conservation.

**ESPM 5604 Environmental Management Systems and Strategy**
A-F only, 3 credit(s); prerequisite [Math 1142 or Math 1271, Math 1282]; [Econ 1101 or ApEc 1101]; Instructor: Hill, Jason David
Description: This course will introduce students to the principles of environmental management systems and strategic planning. The course will cover topics such as environmental auditing, ISO standards, and sustainability strategies.

**ESPM 5606 Pollution Prevention: Principles, Technologies, and Practices**
A-F only, 3 credit(s); prerequisite CHEM 1011 or [CHEM 1015, CHEM 1017] or instr consent; Credit will not be granted if credit has been received for: ESPM 3606W; Instructor: McComas, Cindy Ann
Description: This course will introduce students to the principles of pollution prevention and the technologies used to reduce pollution. The course will cover topics such as life cycle analysis, material flow analysis, and resource efficiency.

**ESPM 5608 Bioremediation**
A-F only, 3 credit(s); prerequisite [BIOL 1001 or BIOL 1009], CHEM 1011; Credit will not be granted if credit has been received for: ESPM 4608; Instructor: Schilling, Jonathan Scott
Description: This course will introduce students to the principles of bioremediation and its application to environmental problems. The course will cover topics such as microbial ecology, enzyme technology, and site-specific remediation strategies.

**ESPM 5608 Advances in Pharmacometrics Modeling and Simulation**
S-N only, 1 credit(s); prerequisite SACP grad major in ECP track or instr consent; 3 credit(s); prerequisite [Grad student in ECP or PHM or instr consent]; Instructor: Brandwein, Richard
Description: This course will introduce students to the principles of pharmacometrics and its application to drug development. The course will cover topics such as biopharmaceutics, bioavailability, and in vitro drug testing.

**ESPM 5608 Research Problems**
1-8 credit(s), max credits 8, 4 completions allowed; prerequisite SACP grad major in ECP track or instr consent; 1 credit(s), max credits 8, 4 completions allowed; prerequisite SACP grad major in ECP track or instr consent; Instructor: Brandwein, Richard
Description: This course will provide students with an opportunity to conduct research under the supervision of a faculty member. Students will develop research proposals and conduct experiments in their area of interest.

**ESPM 5608 Special Topics**
1-4 credit(s), max credits 8, 4 completions allowed; prerequisite SACP grad major in ECP track or instr consent; Instructor: Brandwein, Richard
Description: This course will provide students with an opportunity to explore a specialized topic in environmental science. The course will cover topics such as air pollution, climate change, and the impact of meteorological events on human health.

**Experimental and Clinical Pharmacology**
7-159 WDH

**ECP 8100 Seminar**
1 credit(s), max credits 8, 8 completions allowed; prerequisite SAPC grad major in ECP track or instr consent; Instructor: Johnson, PhD, L'Aurelle Anna Lee
Description: This course will provide students with an opportunity to engage in discussions and presentations related to current issues in environmental science. The course will cover topics such as climate change, biodiversity, and environmental policy.

**ECP 8200 Research Problems**
1-8 credit(s), max credits 16, 16 completions allowed; prerequisite Grad SAPC major (ECP Track) or instr consent; Instructor: Brandwein, Richard
Description: This course will provide students with an opportunity to conduct research under the supervision of a faculty member. Students will develop research proposals and conduct experiments in their area of interest.

**ECP 8400 Pharmacometrics**
3 credit(s); prerequisite SAPC grad major in ECP track or instr consent; Instructor: Brandwein, Richard
Description: This course will introduce students to the principles of pharmacometrics and its application to drug development. The course will cover topics such as biopharmaceutics, bioavailability, and in vitro drug testing.

**ECP 8430 Advances in Pharmacometrics Modeling and Simulation**
S-N only, 1 credit(s); max credits 6, 6 completions allowed; prerequisite Grad student in ECP or PHM or instr consent; Instructor: Brandwein, Richard
Description: This course will introduce students to the principles of pharmacometrics and its application to drug development. The course will cover topics such as biopharmaceutics, bioavailability, and in vitro drug testing.

**ECP 8900 Advanced Topics in Experimental and Clinical Pharmacology**
1-4 credit(s), max credits 8, 4 completions allowed; prerequisite SAPC grad major in ECP track or instr consent; Instructor: Brandwein, Richard
Description: This course will provide students with an opportunity to explore a specialized topic in environmental science. The course will cover topics such as air pollution, climate change, and the impact of meteorological events on human health.
FSOS 1101 Intimate Relationships
4 credit(s); Meets CLE req of Social Sciences;
Instructor: Mendenhall PhD, Tai Justin
Description: Intimate Relationships is a course that focuses on the interpersonal dynamics of couples, and on the dynamics of couples in-context. We will explore how intimate relationships evolve and develop and how they succeed or fail. We will talk about a variety of important relationship topics and skills, including dating, hooking-up, cohabitation, marriage, sexual orientation, gender roles & power, communication & conflict resolution, relationship problems (e.g., abuse, infidelity, divorce), and couple enrichment/couples therapy. The course’s principal goal is to provide an overview of these and related topics, and to help you gain a deeper appreciation and awareness of their importance.
Style: 50% Lecture, 10% Film/Video, 20% Discussion, 20% Small Group Activities.
Grading: 33% final exam, 33% reports/papers, 33% quizzes.
Exam Format: Multiple Choice + Essay

FSOS 1301 Cash or Credit: You Need to Know
A-F only, 1 credit(s); prereq Fr or soph or PSEO;
Instructor: Zuiker, Virginia Solis
Description: College students are referred to as “America's newest class of debtors” by the media. They are targeted for easy-to-get credit cards and also may have large student loans. FSOS 1301 is a course that provides PSEO students, freshmen and sophomore students with factual information about basic money management skills. The great thing about this class is that the topics covered in class can be applied to every day life, even the life that exists outside of college. This is an on-line, interactive learning based class.” Class URL:
http://www.collegelife.umn.edu/fsos.html
Style: 100% Web Based. Distance Learning, web-based
Grading: 40% reports/papers, 60% quizzes.
Exam Format: Multiple choice

FSOS 2101 Preparation for Working With Families
A-F only, 2 credit(s);
Instructor: Goodman, William Joseph
Description: This course is designed to be a systematic preparation for upper division education, research and field internships, and career possibilities in Family Social Science. Central to the focus of this course is also the advancement of students’ thinking power by utilizing five levels of thinking outlined by Bloom, 1956. These five levels: knowledge, comprehension, application, analysis, evaluation, and synthesis are used in responding to the course text, “Becoming a Helper” by Marianne and Gerald Corey (2007) and workbook assignments. Book and class topics include the following: Are the Helping Professions for You? Getting the Most from Your Education and Training, Stages in the Helping Process, Common Concerns of Beginning Helpers, Ethical Issues Facing Helpers, Values and the Helping Relationship, Cultural Diversity in the Helping Professions, Working in the Community, Working with Groups, Working with the Family, Understanding Life Transitions, Stress and Burnout, and The Challenge of Retaining Your Vitality. To review course requirements, goals and objectives, and additional information about this course, students are encouraged to view the syllabus on the WEB.
Style: 20% Lecture, 40% Discussion, 20% Laboratory.
Grading: PLEASE NOTE that this course uses Contract Grading

Family Medicine and Community Health
6-240 Phillips-Wangensteen (MMC 381)

FMCH 5960 Basic Research Methods in Family Practice
A-F only, 3 credit(s); prereq Post-MD fellow, instr consent;
Instructor: Yeazel, Mark William
Description: Student may contact the instructor or department for information.

FMCH 5961 Family Medicine Fellows and Junior Faculty Integration Seminar
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq [Family medicine faculty or fellow], instr consent;
Instructor: Bland, Carolle Jeanne
Description: Student may contact the instructor or department for information.

Family Social Science
290 McNeal Hall

FSOS 1301 Advanced Topics in Experimental and Clinical Pharmacology
1-4 credit(s), max credits 8, 4 completions allowed; prereq SACP grad major in ECP track or instr consent;
Instructor: Marino, Susan Ellis
Description: Student may contact the instructor or department for information.

ECP 8993 Directed Readings in Experimental and Clinical Pharmacology
1-2 credit(s), max credits 4, 4 completions allowed;
Instructor: Peterson, Marnie Lorraine
Description: Student may contact the instructor or department for information.

ECP 8993 Directed Study in Experimental and Clinical Pharmacology
1-4 credit(s), max credits 4;
Instructor: Brundage, Richard
Description: Student may contact the instructor or department for information.

ECP 8993 Directed Study in Experimental and Clinical Pharmacology
1-4 credit(s), max credits 4;
Instructor: Jacobson, Pamela Ann
Description: Student may contact the instructor or department for information.

ECP 8993 Directed Study in Experimental and Clinical Pharmacology
1-4 credit(s), max credits 4;
Instructor: Brundage, Richard C
Description: Student may contact the instructor or department for information.

ECP 8993 Directed Study in Experimental and Clinical Pharmacology
1-4 credit(s), max credits 4;
Instructor: Tracy, Tim
Description: Student may contact the instructor or department for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
of the students. I do not intend to have the students complete the class espousing my political views, but rather to explore more fully a range of political perspectives in an attempt to determine their own views on current family issues. Students are evaluated on their ability to articulate a particular view, identify its theoretical underpinnings, support it with empirical findings, and refute alternative views.

**Style:** 35% Lecture, 5% Film/Video, 20% Discussion, 20% Small Group Activities, 10% Student Presentation, 10% Guest Speakers.

**Grading:** 26% reports/papers, 30% special projects, 13% quizzes, 16% written homework, 10% class participation.

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**FSOS 2105 Methods in Family Research**  
3 credits(s); prereq PSTL 1004 or STAT 1001 or OMS 2550 or ESPY 3264 or STAT 3011 or PSY 4801 or instr consent ; Credit will not be granted if credit has been received for: FSOS 4105;  

**Instructor:** Von Korff,Lynn  
**Description:** This course is designed to give you the opportunity to develop the skills you need to be an intelligent consumer of scientifically based information about families. Topics covered include how to access current research on families, the scientific process and components of a well-executed family study, and social, ethical, and contextual factors that make studying families both exciting and challenging.

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**FSOS 2191 Independent Study in Family Social Science**  
1-4 credit(s), max credits 12, 12 completions allowed; prereq Soph, instr consent ;  

**Instructor:** STAFF  
**Description:** The independent study course is for field, library, and laboratory research in family social science. The topics, course content, and readings for the course are developed under the guidance of the supervising faculty member. Prior registration approval is necessary.

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**FSOS 3101 Personal and Family Finances**  
3 credits(s); prereq At least soph or instr consent ;  

**Instructor:** Powell,Sharon Elizabeth  
**Description:** The importance of financial management is recognized for its major impact on quality of life for individuals and families. This course focuses on personal and family finances, not corporate or government finances. College students? unique financial challenges and their related decisions will be considered as they impact credit ratings and debt accumulation, two areas in which less than optimal decision-making often results in long-term financial stress.

**Style:** 25% Lecture, 10% Film/Video, 20% Discussion, 25% Small Group Activities, 10% Student Presentation, 10% Guest Speakers.

**Grading:** 15% mid exam, 10% final exam, 15% reports/papers, 15% special projects, 20% reflection paper, 15% in-class presentation, 10% class participation.

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**FSOS 3101 Personal and Family Finances**  
3 credits(s); prereq At least soph or instr consent ;  

**Instructor:** Katras,Mary Jo Barl  
**Description:** This is a three-credit core course in the Family Social Science bachelor's major. It is required for the major and is also appropriate for those who are interested in gaining practical knowledge of personal finance. This course focuses on personal and family finances, not corporate or government finances. It will address financial pitfalls such as too much debt and investing scams. However, the focus is on financial strategies and tools, economic security, and ways to build assets.

**Style:** 100% Web Based.

**Grading:** 25% final exam, 15% quizzes. Weekly on-line discussion--15% Case Applications--15% Personal Financial Planner--30%

**Exam Format:** Multiple Choice

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**FSOS 3102 Family Systems and Diversity**  
3 credits(s); prereq At least soph or instr consent ; Credit will not be granted if credit has been received for: FSOS 5101;  

**Instructor:** Xiong PhD,Zha Blong  
**Description:** This course examines family systems across the lifespan using a variety of family theories (i.e., the family systems theory, the human ecology theory, the family development theory, etc.). It introduces students to diversity issues related to gender, class, ethnicity/race, sexual orientation, disability, as well as emergent family forms (i.e., cohabitation, divorce, single parenthood, and remarriage) in the context of the latest research.

**Style:** 50% Lecture, 15% Film/Video, 10% Discussion, 15% Small Group Activities, 10% Student Presentation.

**Grading:** 32% mid exam, 32% final exam, 16% reports/papers, 10% quizzes, 10% reflection paper.

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**FSOS 3104 Global and Diverse Families**  
3 credits(s); prereq at least Soph or instr consent ; Credit will not be granted if credit has been received for: FSOS 4102;  

**Meets CLE req of Global Perspectives; meets CLE req of Social Sciences;**  
**Instructor:** Xiong PhD,Zha Blong  
**Description:** This course focuses on family dynamics of various racial/ethnic populations across the world, including the United States, in the contexts of global economic, political and socio-cultural processes. The course introduces students to a variety of theoretical frameworks (i.e., cultural variant vs. cultural deviant, family ecological) to question, examine, and understand the interdependence of family, kin, racial, cultural, class, communal, educational, social, religious, political and economic systems within and across countries. In addition, it also helps students to recognize personal, social, cultural, mass media, and other barriers to understanding and work with global and diverse families. Course Objectives/Goals: a. To know the basics for understanding the family life of people in various cultures and various racial/ethnic groups as they might understand it themselves. b. To recognize personal, social, cultural, mass media, and other barriers to understanding the family life of people in various cultural, racial and ethnic groups. c. To recognize key ways family and kin are important to people in various cultural, racial and ethnic groups. d. To understand key dynamics and effects on families of various ?isms? (racism, sexism, ethnocentrism, ageism, heterosexism), privilege, discrimination, obliviousness and ignorance. e. To understand key effects of families around the world of governmental policies of the U.S. and of other international governments. f. To understand important elements and consequences of personal and institutionalized racism.

**Style:** 50% Lecture, 15% Film/Video, 10% Discussion, 15% Small Group Activities, 5% Student Presentation, 5% Guest Speakers.

**Grading:** 14% mid exam, 14% final exam, 21% reports/papers, 7% quizzes, 28% additional semester exams, 6% attendance, 10% reflection paper. Extra credit assignments worth up to 20 points will be assigned to students to complete throughout the semester.

**Exam Format:** All exams include multiple choice and true/false items only.

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**FSOS 3104 Global and Diverse Families**  
3 credits(s); prereq at least Soph or instr consent ; Credit will not be granted if credit has been received for: FSOS 4102;  

**Meets CLE req of Global Perspectives; meets CLE req of Social Sciences;**  
**Instructor:** Rosenblatt,Paul C  
**Description:** Perspective on family dynamics of various racial/ethnic populations in the United States and other countries in the context of national and international economic, political, and social processes. Topics include learning how to understand other individuals and cultures in their own terms and in terms of local, national, and world wide systems; human rights issues; gender and sexual orientation in cross-cultural perspective; theories about racism, privilege, and whiteness.

**Style:** 100% Web Based.

**Grading:** 25% final exam, 15% quizzes. Weekly on-line discussion--15% Case Applications--15% Personal Financial Planner--30%

**Exam Format:** Multiple Choice

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families; population policy; and economic, monetary, and trade policy.

Style: 42% Lecture, 25% Film/Video, 33% Discussion.

Grading: 44% final exam, 11% reports/papers, 44% quizzes.

Exam Format: choice between (a) all short essays versus (b) mostly multiple choice questions with one or a small number of short essays

FSOS 3191 Independent Study in Family Social Science
1-5 credit(s), max credits 12, 12 completions allowed; prereq Jr, instr consent

Instructor: STAFF

Description: The independent study course is for field, library, and laboratory research in family social science. The topics, course content, and readings for the course are developed under the guidance of the supervising faculty member. Prior registration approval is necessary.

FSOS 3426 Alcohol and Drugs: Families and Culture
3 credit(s); Credit will not be granted if credit has been received for: FSOS 5426;

Instructor: Jankord, John Lamont

Description: This survey course provides an introduction to the psychology and sociology of psychoactive drug use, abuse, and addiction, in contemporary American society. While this is not a skill development or clinical course, the relationships between individual, family, and socio-cultural dimensions of drug using behavior will be explored. The bio-psycho-socio-spiritual model is used to conceptualize addiction. Special attention is given to variables of ethnicity, gender, sexuality, and social class. Lectures, readings, large and small group discussions, student presentations, and individual research and writing projects are used to advance student knowledge and understanding.

Style: 23% Lecture, 15% Film/Video, 22% Discussion, 15% Small Group Activities, 15% Student Presentation, 10% Guest Speakers.

Grading: 14% mid exam, 14% final exam, 14% reports/papers, 6% special projects, 8% attendance, 14% journal, 14% reflection paper, 7% in-class presentation, 9% class participation.

FSOS 3429 Counseling Skills Practicum I
3 credit(s); Credit will not be granted if credit has been received for: FSOS 5429;

Instructor: Meyer, Cynthia Jo

Description: This course is designed to provide students the listening skills necessary to establish a helping relationship and to promote the personal growth and development of people they will see in their future work. It helps students develop skills that are critical in helping other people, including individuals, couples and families. Through class lecture, practice, written exercises, and discussion, this course focuses both on self-awareness about one's desire to help others as well as developing basic skills in helping others.

Style: 50% Lecture, 20% Discussion, skills practice

Grading: 30% final exam, 25% reports/papers, 10% special projects, 15% class participation, 20% other evaluation.

Homework assignments

Exam Format: multiple choice and short essay

FSOS 4101 Sexuality and Gender in Families and Close Relationships
3 credit(s); prereq At least jr or instr consent:

Instructor: Meyer, Cynthia Jo

Description: Sexuality and Gender in Families and Close Relationships provides students an opportunity to learn about current research in the field of sexuality, develop comfort applying this information in professional settings, utilize and develop critical thinking skills to examine evidence and biases in the field of sexual science, and to clarify and confirm sexual values as well as understand the impact these values have on one's personal and professional relationships. A variety of topics will be covered including family communication and sexuality education, body image, gender development and development of gender roles, sexuality research, developing healthy sexual values in children, adolescent sexuality, attraction and intimacy, mate selection and other sexuality related topics of importance to relationships and families.

Style: 60% Lecture, 30% Discussion, small group presentations and films.

Grading: 30% mid exam, 30% final exam, 20% reports/papers, 10% special projects, 10% class participation.

Exam Format: multiple choice

FSOS 4104W Family Psychology
3 credit(s); prereq At least jr or instr consent; Meets CLE req of Writing Intensive;

Instructor: Lassig, Sara Lynn

Description: Family Psychology addresses processes that take place in families of origin, families of choice and other close relationships within diverse social contexts. Emphasis is placed on evaluating current research on family dynamics within and across generations. In addition to looking at Family Systems Theory, specific topics include: family rituals, biology and family interactions, marital interactions, adoption, lesbian and gay families, aging, and family therapy. While the emphasis is on understanding current family research, the course also focuses on ways the material can be applied to the student's family and relationships as well as professional interactions with clients. Family Psychology is a writing intensive course which means that the course grade is directly tied to both the quality of writing as well as knowledge of the subject matter.

Style: 50% Lecture, 40% Discussion, films and videos

Grading: 30% final exam, 60% reports/papers, 5% in-class presentation, 5% class participation.

Exam Format: multiple choice and short essay

FSOS 4104W Family Psychology
3 credit(s); prereq At least jr or instr consent; Meets CLE req of Writing Intensive;

Instructor: Lassig, Sara Lynn

Description: This course addresses processes that take place in families of origin, families of choice and other close relationships within diverse social contexts. Emphasis is placed on evaluating current research on family dynamics within and across generations. Family Psychology is an advanced undergraduate course that graduate students may take with permission. It is assumed that students are familiar with family theories and concepts and with basic principles of social science research. Family Psychology is a writing intensive course. This means the course grade is directly tied to the quality of the
student's writing as well as to knowledge of the subject matter. Students who do not meet the minimal standards of writing competence cannot pass the course. For more information, see the Center for Writing at the web site: http://writing.umn.edu.

FSOS 4106 Family Resource Management
3 credit(s); prereq APEC 1101 or APEC 1102 or ECON 1101 or ECON 1102 or ECON 1104 or instr consent credit will not be granted if credit received for: 3103;

Instructor: Magistad,Beth Maddock

Description: The course examines families as important economic units in society. The content focuses on the family economic activities of management, production, consumption, investment, exchange, allocation, and distribution. These economic activities assist families in reaching levels of living that bring varying degrees of life quality for family members. The course emphasis is placed on the managerial activities of low-income families and selected public policies that directly influence their economic well being. Management involves facing opportunities and solving the practical problems of everyday life, coordinating the activities of family members, and making and implementing decisions. Some challenges include how to allocate time in ways that will: produce capable people; distribute income to meet the safety and growth needs of family members; consume material resources for health of members and the environment; and use community resources in ways that will assist family members in realizing valued ends, and reaching important goals.

Style: 50% Lecture, 5% Film/Video, 20% Discussion, 20% Small Group Activities, 5% Guest Speakers.

Grading: 40% mid exam, 20% final exam, 30% reports/papers, 10% class participation.

FSOS 4153 Family Financial Counseling
A-F only, 3 credit(s); [3101, 3102, 3429] or instr consent;

Instructor: Zuiker, Virginia Solis

Description: Family financial issues are studied with an emphasis on the role of the financial counselor. This course emphasizes the development of professional skills for assisting individuals and families to cope with financial concerns in their day-to-day lives. This course is designed to increase awareness and knowledge of the characteristics of persons in serious financial difficulties, complexity of factors affecting such situations, desirable relationships between the helper and the helped, and community agencies and organizations with appropriate resources. A basic knowledge of family finance is expected. Students completing this course are eligible to take the Accredited Financial Counselor (AFC) exam administered by the Institute for Personal Finance (IPF). Successful completion of the two courses does not equate passing the Accredited Financial Counselor exam.

Style: 40% Lecture, 5% Film/Video, 20% Discussion, 10% Small Group Activities, 10% Student Presentation, 10% Guest Speakers, 5% Web Based.

Grading: 41% mid exam, 20% reports/papers, 27% written homework, 12% class participation.

FSOS 4155 Parent-Child Relationships
A-F only, 3 credit(s); [3101, 3102, 3419] or instr consent;

Instructor: Magistad,Beth Maddock

Description: This course will cover history, theories, research, and contemporary practices of parent-child relationships in diverse families across the life span. Students will apply theories studied in class to parent-child observations. The course helps to prepare students for professional work in education, social work and other human service occupations as well as to examine parenting from a personal perspective.

Style: 65% Lecture, 10% Film/Video, 10% Discussion, 10% Small Group Activities, 5% Student Presentation.

Grading: 13% mid exam, 13% final exam, 15% reports/papers, 15% special projects, 8% written homework, 26% additional semester exams, 2% in-class presentation, 7% class participation.

Exam Format: Multiple choice

FSOS 4160H Honors Capstone Project
A-F only, 2 credit(s), max credits 4; prereq FSOS honors;

Instructor: STAFF

Description: Individualizes the honors experience by connecting aspects of major program with special academic interests.

FSOS 4191 Independent Study in Family Social Science
1-4 credit(s), max credits 12, 12 completions allowed; prereq Sr, instr consent;

Instructor: STAFF

Description: The independent study course is for field, library, and laboratory research in family social science. The topics, course content, and readings for the course are developed under the guidance of the supervising faculty member. Prior registration approval is necessary.

FSOS 4284 Research Internship
1-4 credit(s), max credits 4, 1 completion allowed; prereq [FSOS major, at least jr] or instr consent;

Instructor: Goodman, William Joseph

Description: This course consists of 180 hours of directed paraprofessional work experience related to the student's applied interest. While the unit of focus is on families throughout this course, student involvement in agencies may range from working with the Minnesota State Legislature (Family Policy) to Family Financial Counseling (Family Economics) to Nursing Homes (Family Health Care). A multitude of Minnesota State, National, and International social service agencies are utilized in providing students with an experience that best advances their thinking and working. This course is further designed to integrate the whole of a student's undergraduate work by requiring students to complete a professional portfolio suitable for use during job interviews upon graduation. To review course requirements, goals and objectives, and additional information about this course, students are encouraged to view the syllabus on the WEB. This course is for Family Social Science undergraduate majors only.

Style: 100% Discussion.

Grading: 5% in-class presentation, 5% laboratory evaluation, 90% other evaluation. community service

FSOS 5193 Directed Study in Family Social Science
1-6 credit(s), max credits 6, 1 completion allowed; prereq FSOS or grad student in related field;

Instructor: STAFF

Description: The directed study course is for field, library, and laboratory research in family social science. The topics, course content, and readings for the course are developed under the guidance of the supervising faculty member. Prior registration approval is necessary.

FSOS 5429 Counseling Skills Practicum I
3 credit(s); Credit will not be granted if credit has been received for: FSOS 3429;

Instructor: Meyer, Cynthia Jo

Description: This course is designed to provide students the listening skills necessary to establish a helping relationship and to promote the personal growth and development of people they will see in their future work. It helps students develop skills that are critical in helping other people, including individuals, couples and families. Through class lecture, practice, written exercises,
and discussion, this course focuses both on self-awareness about one’s desire to help others as well as developing basic skills in helping others.

**Style:** 50% Lecture, 20% Discussion, skills practice

**Grading:**

- 30% final exam, 25% reports/papers, 10% special projects, 15% class participation, 20% other evaluation.

**Homework assignments**

**Exam Format:** multiple choice and short essay

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**FSOS 8001 Conceptual Frameworks in the Family**

- **Credit:** 3 (A-F only)
- **Instructor:** Danes, Sharon M
- **Description:** This course focuses on major theoretical and conceptual models used to study families. Through readings, progressive projects, and small group interactions, unique concepts, propositions, assumptions, and limitations of family theories will be studied. Assignments will challenge you to critically interpret the theoretical applications within assigned and student-selected family research areas.

**Style:** 40% Lecture, 20% Discussion, 10% Small Group Activities, 25% Student Presentation, 5% Guest Speakers.

**Grading:** 25% reports/papers, 10% special projects, 25% reflection paper, 20% in-class presentation, 20% class participation.

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**FSOS 8013 Qualitative Family Research Methods**

- **Credit:** 3 (A-F only)
- **Instructor:** Rosenblatt, Paul C
- **Description:** Qualitative family research methods—everything from finding a research topic to interviewing, data analysis, and writing up findings. Topics include the diversity of qualitative research approaches and standards, dealing with the politics of doing qualitative research in situations where that kind of research might not be valued or understood, research ethics, the special challenges of interviewing couples and families and analyzing data from those interviews, the nature of knowledge in qualitative research, researching family content available on the worldwide web, research design, credibility and validity issues in qualitative research, different approaches to interviewing well, issues in transcribing interview data, various conceptual systems from qualitative research and their implications for all aspects of the research and writing process, ethnographic research, feminist perspectives, critical theory perspectives, data analytic strategies, writing strategies, and more.

**Style:** 30% Lecture, 5% Film/Video, 50% Discussion, 15% Small Group Activities.

**Grading:** 33% final exam, 33% reports/papers, 33% quizzes.

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**FSOS 8014 Quantitative Family Research Methods II**

- **Credit:** 3 (A-F only)
- **Instructor:** Rueter, Martha A
- **Description:** This course is designed to prepare you to become an independent quantitative family researcher. It is assumed that students taking this course have a solid foundational knowledge of quantitative research methods. In this course, we will build on your knowledge of quantitative methods to help you develop the additional skills and knowledge necessary to design, fund, and properly manage your own family research projects. One of the vehicles for learning is the preparation of a National Institutes of Health R01 grant application. This application covers each component of a well designed research study. Properly completing the application provides an excellent opportunity to directly apply the full range of skills needed to become a family researcher.

**Style:** 30% Lecture, 25% Discussion, 20% Small Group Activities, 10% Student Presentation, 5% Guest Speakers, 10% Web Based.

**Grading:** 80% reports/papers, 20% in-class presentation.

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**FSOS 8034 Marriage and Family Therapy Supervision**

- **Credit:** 3 (A-F only)
- **Instructor:** Harris, Steven Michael
- **Description:** For advanced doctoral students in Marriage and Family Therapy. Theories of supervision, structures for supervision, methods of supervision, ethical issues.

**Grading:** 50% reports/papers, 20% quizzes, 20% in-class presentation, 10% class participation.

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**FSOS 8035 Assessment of Couples and Families**

- **Credit:** 3 (A-F only)
- **Instructor:** Craft, Shonda Marie
- **Description:** The focus of this course is the exploration of issues in the clinical assessment of specific clinical constructs and relational difficulties experienced in the context of couple and family systems. Students will learn about the underlying assumptions and values of contemporary assessment approaches, as well as empirically and clinically tested assessment procedures. Specific assessment techniques will be discussed and evaluated. Ethical, legal, clinical, and practical issues will be explored. Attention will be paid to theoretical underpinnings of measures as well as their psychometric properties. A major area of emphasis in each class will be to integrate issues related to cultural diversity (e.g., gender, race, ethnicity, class, sexual/romantic orientation, ability/disability, etc.) throughout the course. Lectures, class activities, group discussions, and individual assignments will be used to promote and enhance critical thinking skills related to course material.

**Style:** 30% Lecture, 30% Discussion, 30% Small Group Activities, 10% Student Presentation.

**Grading:** 40% reports/papers, 30% special projects, 20% in-class presentation, 10% class participation.

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**FSOS 8036 Couple and Family Therapy Research**

- **Credit:** 3 (A-F only)
- **Instructor:** Craft, Shonda Marie
- **Description:** For advanced doctoral students in Marriage and Family Therapy. Focus on research needs for the field of Marriage and Family Therapy. Preparation for MFTs as academicians to think about their own personal research agenda and the relationship between this agenda and the larger system. Strengths and limitations of current couple and family outcome research; methodological approaches, including qualitative and quantitative.

**Style:** 25% Lecture, 30% Discussion, 10% Small Group Activities, 10% Student Presentation, 25% Guest Speakers.

**Grading:** 40% reports/papers, 20% special projects, 20% attendance, 10% in-class presentation, 10% class participation.

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**FSOS 8106 Seminar: Families From an Economic Perspective**

- **Credit:** 3 (A-F only)
- **Instructor:** Zuiker, Virginia Solis
- **Description:** This seminar will focus on economic approaches to studying families, integrating conceptual and methodological perspectives of family social science. We will start by tracking the economic well being of our own families across generations. Next, we will examine the research about the economic well being of U.S. families, giving special attention to family culture and structure, socioeconomic groups, and stages of the family life cycle.

**Style:** 20% Lecture, 50% Discussion, 5% Small Group Activities, 20% Student Presentation, 5% Guest Speakers.

**Grading:** 19% reports/papers, 13% special projects, 35% reflection paper, 16% in-class presentation, 17% class participation.

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**FSOS 8193 Directed Study in Family Social Science**

- **Credit:** 1-6 (A-F only)
- **Instructor:** STAFF
- **Description:** Directed study for a doctoral student in FSoS or related field.

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**Notes:**

- Enrollment requires consent from instructor.

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FSOS 8200 Orientation for Family Social Science
S-N only, 1 credit(s); prereq instr consent;
Instructor: McCulloch, B. Jan
Description: Orientation of new students in the graduate program in Family Social Science. In a setting of open discussion and questioning, students will obtain an introduction to the department, the field of family science, the academic setting, and roles they will play as Family Social Science Graduate Students and as family science professionals. They also participate in individual "faculty chats" with FSOS faculty and the Wednesday noon FSOS colloquium series.
Style: 40% Lecture, 30% Discussion, 30% Guest Speakers.
Students also participate in "Faculty Chats" and the Wednesday noon FSOS colloquium series
Grading: This is a S/N course
Exam Format: There are no exams for this course.

FSOS 8295 Family Therapy Practicum
S-N only, 1-12 credit(s), max credits 12, 1 completion allowed; prereq Marriage and family therapy student;
Instructor: Craft, Shonda Marie
Description: This course is designed to provide you with group supervision in addition to the supervision you receive at your clinical placement site. Bi-monthly supervision will consist of regular check-ins and case presentations as well as clinical discussions guided by a range of conceptual and theoretical frameworks, clinical models, and areas of learning specific to your developmental needs as a clinician.
Style: 100% Discussion.
Grading: 100% other evaluation.

FSOS 8296 Family Therapy Internship
S-N only, 1-21 credit(s), max credits 21, 1 completion allowed; prereq 8295, marriage and family therapy student;
Instructor: Craft, Shonda Marie
Description: This course is designed to provide you with supervision during your internship experience. Frequency, orientation, and supervision structure will be determined in conjunction with your supervisor.
Style: 100% Discussion.
Grading: 100% other evaluation.

FSOS 8297 Supervision of Supervision
S-N only, 1-3 credit(s), max credits 12, 12 completions allowed; prereq MFT student, instr consent;
Instructor: Minor, Brier Miller
Description: This is an experiential practicum course that covers two semesters, in which students have opportunities providing clinical supervision of masters students or masters level therapists in group or individual settings. During the supervision practicum, students will engage in 18 hours (2 hours per month) of "supervision of supervision" or mentoring of their work. This meets partial requirements for becoming AAMFT Approved Supervisors.
Style: 75% Laboratory, 25% Small Group Activities. This practicum experience can be tailored to the students' needs and time constraints.
Grading: 50% attendance, 50% class participation. This is a pass/fail class that is graded on participation through supervision practicum and mentoring of that experience.

FSOS 8550 Advanced Topics in Family Social Science
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq FSOS PhD student;
Instructor: Ruetter, Martha A
Description: This course is designed for advanced graduate students in areas of family, communication, interpersonal relationships, and allied fields interested in current family communication research, methods, and theories. The emphasis will be on research associating communication processes in families with relationship outcomes, family member well-being, and child adjustment. The course will be taught as a seminar with students involved in the review and discussion of readings covering prominent family communication theories. Methods used to study communication in families will also be reviewed, discussed, and practiced. Methods covered will include study design using self-reports, observation, and laboratory settings and the quantitative analysis of data. Upon completion of this course, a student should have: A basic knowledge of current research on the association between family communication and family member well-being. The ability to identify and utilize family communication theories appropriate to one's research question. The ability to identify and utilize family communication methods appropriate to one's research question.
Style: 15% Lecture, 40% Discussion, 15% Small Group Activities, 20% Student Presentation, 10% Demonstration.
Grading: 30% reports/papers, 10% attendance, 30% in-class presentation, 30% class participation.

FSOS 8755 Master's Paper: Plan B Project
S-N only, 1-6 credit(s), max credits 6, 1 completion allowed; prereq FSOS MA student;
Instructor: STAFF
Description: Graduate faculty work with students on research for Plan B paper.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad FSOS major, instr consent;
Instructor: STAFF
Description: 

Finance

FINA 3001 Finance Fundamentals
A-F only, 3 credit(s); prereq ACCT 2050, OMS 2550; Credit will not be granted if credit has been received for: APEC 3501;
Instructor: STAFF

FINA 3001 Finance Fundamentals
A-F only, 3 credit(s); prereq ACCT 2050, OMS 2550; Credit will not be granted if credit has been received for: APEC 3501;
Instructor: Reik, John W
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. This class is a good choice if you want to learn how to: (1) analyze a business’s financial statements; (2) compute what something deposited today at a given interest rate will be worth in the future; (3) compute the maximum amount that you should pay for something; (4) forecast a firm’s balance sheet; (5) decide whether to acquire a long-term business asset or (6) compute the cost of a firm’s capital (money). Although you will learn a little about the stock and bond market, the emphasis of this course is on managing a firm’s finances.
Style: Online with handwritten exams
Grading: 30% mid exam, 40% final exam, 30% quizzes.
Exam Format: Supervised, in-person (not online) exams

FINA 4121 Financial Markets and Interest Rates
A-F only, 2 credit(s); prereq 3001;
Instructor: STAFF
Description: Course Provides and introduction to the principles of and methods used in Financial Markets. Basic framework for valuing fixed income securities. Term structure on interest rates, forward rates, principles of fixed-income valuation. Surveys treasury, corporate, municipal, securitization markets.
Style: 90% Lecture, 10% Discussion.
Grading: 45% final exam, 5% special projects, 20% quizzes, 30% written homework. These percentages are subject to
FINA 4221 Principles of Corporate Finance  
A-F only, 2 credit(s); prereq 3001, CSOM [jr or sr];  
Instructor: Legg, Thomas D  
Description: Student may contact the instructor or department for information.

FINA 4221 Principles of Corporate Finance  
A-F only, 2 credit(s); prereq 3001, CSOM [jr or sr];  
Instructor: Moser, Helen  
Description: Student may contact the instructor or department for information.

FINA 4321 Portfolio Management and Performance Evaluation  
A-F only, 2 credit(s); prereq 3001;  
Instructor: STAFF  
Description: Introduces investment environment and concepts used to manage security portfolios. Portfolio/security risk/return tradeoffs, portfolio diversification, asset allocation, active portfolio management versus indexed portfolios, portfolio performance evaluation.

FINA 4329 Security Analysis Capstone  
A-F only, 2 credit(s); prereq [4221 or 4241], 4422, [ACCT 5100 or ACCT 5101];  
Instructor: Legg, Thomas D  
Description: Student may contact the instructor or department for information.

FINA 4422 Financial Modeling  
A-F only, 2 credit(s); prereq 4221, [ACCT 5100 or ACCT 5101];  
Instructor: Legg, Thomas D  
Description: Student may contact the instructor or department for information.

FINA 4522 Options in Corporate Finance  
A-F only, 2 credit(s); prereq 4221, CSOM [jr or sr];  
Instructor: Yu, Jianfeng  
Description: Student may contact the instructor or department for information.

FINA 4621 The Global Economy (Macro)  
A-F only, 2 credit(s); prereq 3001;  
Instructor: Bazzfresch, Santiago  
Description: This course is a survey of macroeconomics from a global perspective. Macroeconomic policies in emerging markets and developed countries are covered. International dimensions of corporate finance are discussed. Exchange rate determination mechanisms, exchange rate regimes, the interest rate parity conditions, and a country's international capital and commercial balances are analyzed. Students who have completed ECON 3102 Intermediate Macro Economics Theory should not enroll in FINA 4621.

Style: 40% Lecture, 25% Discussion, 25% Small Group Activities, 10% Student Presentation.

FINA 4622 International Finance  
A-F only, 2 credit(s); prereq 4121, [4221 or 4241], [4621 or ECON 3102] credit will not be granted if credit already received for: FINA 4641;  
Instructor: Singh, Raj  
Description: Prerequisites: FINA 4121 FINA 4221 or FINA 4241 FINA 4621 or ECON 3102. Students taking this elective course should expect to learn the nature and purposes of financial management in the international context. They will gain skills in international investment and financing techniques and in exchange risk management. Students will examine barriers to international capital flows, and study the financial instruments used to overcome these barriers. We will examine all issues primarily by focusing on the decisions made by multinational enterprises. We will also discuss some issues relevant to an individual investor. In order to provide a more comprehensive view of the underlying concepts, we will also discuss the underlying macroeconomic forces that determine exchange rates. This course is structured so that learning can take place at multiple levels: through in-class lectures and discussions, homework, etc.

FINA 6121 Debt Markets, Interest Rates, and Hedging  
A-F only, 2 credit(s); prereq MBA 6230, MBA student;  
Instructor: STAFF  

FINA 6241 Corporate Finance Analysis and Decisions  
A-F only, 4 credit(s); prereq MBA 6230, MBA student;  
Instructor: STAFF  
Description: Theoretical/applied understanding of corporate financial decisions. Adjusted present value, economic value added options. Impact of financing decisions on real asset valuation, managerial incentives, corporate strategy.

FINA 6242 Advanced Corporate Finance Analysis and Decisions  
A-F only, 4 credit(s); prereq 6241, MBA student;  
Instructor: STAFF  
Description: Theory/practice of efficiently managing working capital, fixed assets. Emphasizes mergers/acquisitions, corporate restructuring, real options. Use of derivatives as financing tools, in deal structure.

FINA 6321 Portfolio Analysis and Management  
A-F only, 2 credit(s); prereq MBA 6120, MBA 6230, MBA student;  
Instructor: STAFF  

FINA 6323 Advanced Financial Modeling  
A-F only, 2 credit(s); prereq 6322, MBA student;  
Instructor: STAFF  

FINA 6341 World Economy  
A-F only, 4 credit(s); prereq MBA 6230, MBA student;  
Instructor: STAFF  

FINA 6621 International Financial Management  
A-F only, 2 credit(s); prereq MBA 6230, MBA student;  
Instructor: Singh, Raj  
Description: Student may contact the instructor or department for information.

FINA 6801 Finance Independent Study  
1-6 credit(s), max credits 6, 1 completion allowed; prereq MBA student;  
Instructor: STAFF  
Description: Independent Study
FINA 8802 Theory of Capital Markets I: Discrete Time  
2 credit(s); prereq [Econ 8101, Econ 8102, business admin PhD student] or instr consent ;  
Instructor: Bazdresch,Santiago  
Description: Modern asset pricing theory. Static/discrete time frameworks. Fundamental asset pricing equation. Classical finance models: CAPM, consumption-based CAPM, APT. Complete markets, representative agent, Pareto optimality. Challenges to theories. Approaches such as habit formation, heterogeneous agents (incomplete markets) model.

FINA 8812 Corporate Finance I  
2 credit(s); prereq [Econ 8103, Econ 8104, business admin PhD student] or instr consent ;  
Instructor: Tolmasky,Carlos  
Description: Student may contact the instructor or department for information.

FINA 8890 Seminar: Finance Topics  
A-F only, 2-4 credit(s), max credits 16, 4 completions allowed; prereq [8802, 8812, 8822, 8823] or equiv], business admin student] or instr consent ;  
Instructor: Adams,Scot Robert  
Description: Student may contact the instructor or department for information.

FINA 8890 Seminar: Finance Topics  
A-F only, 2-4 credit(s), max credits 16, 4 completions allowed; prereq [8802, 8812, 8822, 8823] or equiv], business admin student] or instr consent ;  
Instructor: Adams,Scot Robert  
Description: Student may contact the instructor or department for information.

FINA 8892 Independent Study in Finance  
1-8 credit(s), max credits 16, 16 completions allowed; prereq Business admin PhD student or instr consent;  
Instructor: STAFF  
Description: Problems or developments of special interest to the student.

FINA 8894 Directed Research in Finance  
1-8 credit(s), max credits 16, 16 completions allowed; prereq Business admin PhD student specializing in finance or instr consent;  
Instructor: STAFF  
Description: Individualized directed research on a project of interest to the student, approved and advised by faculty.

FINA 1001 Beginning Finnish  
5 credit(s); Credit will not be granted if credit has been received for: FIN 4001;  
Instructor: Karvonen,Daniel  
Description: Come study the language of sauna, Sibelius, and Nokia! Finnish is unrelated to most languages in Europe and may seem a bit exotic at first. There are no words for "the" or "a," and there's only a single pronoun for both "he" and "she." But you can learn to spell Finnish in just a few minutes, since words in Finnish are written pretty much like they are pronounced. Much of class time will focus on interactive communicative activities, with students working in pairs or in groups. You'll also learn about Finnish culture via video clips of real-life situations in Finland and other authentic cultural materials such as songs and movies. The main textbook for the course is "Supisuomea" (chapters 1-5), which is accompanied by CDs and a video, which will be used in class. You'll also learn both the written and spoken varieties of Finnish, which are quite different from one another. Qualified students may register for this course under the 4001 designator for 2 credits (and reduced tuition).  
Style: 25% Lecture, 5% Film/Video, 70% Small Group Activities. interactive exercises  
Grading: 10% final exam, 21% reports/papers, 30% quizzes, 6% in-class presentation, 21% class participation, 12% other evaluacion. oral interviews  
Exam Format: essay, short answer, matching

Financial Mathematics  
127 Vincent Hall

FM 5001 Preparation for Financial Mathematics I  
3 credit(s); prereq Grad MFM major or MFM program director approval;  
Instructor: Adams,Scot Robert  
Description: Student may contact the instructor or department for information.

FM 5011 Mathematical Background for Finance I  
4 credit(s); prereq [5001, 5002] with grade of at least B or [MFM program director approval, grad MFM major];  
Instructor: Adams,Scot Robert  
Description: Student may contact the instructor or department for information.

FM 5021 Mathematical Theory Applied to Finance I  
4 credit(s); prereq [5011 or Concurrent registration is required (or allowed) in 5011], grad MFM major, program director approval;  
Instructor: Tolmasky,Carlos  
Description: Student may contact the instructor or department for information.

FM 5031 A Practitioner's Course in Finance I  
4 credit(s); prereq [5021 or Concurrent registration is required (or allowed) in 5021], grad MFM major, program director approval;  
Instructor: Morton,Blaise Grayson  
Description: Student may contact the instructor or department for information.

FM 5091 Computation, Algorithms, and Coding in Finance I  
3 credit(s); prereq Grad MFM major, program director approval;  
Instructor: Adams,Scot Robert  
Description: Student may contact the instructor or department for information.

FM 5091 Computation, Algorithms, and Coding in Finance I  
3 credit(s); prereq Grad MFM major, program director approval;  
Instructor: Prouty,Christopher William  
Description: Student may contact the instructor or department for information.

Finnish  
192 Klaeber Court

FIN 1003 Intermediate Finnish  
5 credit(s); Credit will not be granted if credit has been received for: FIN 4003;  
Instructor: Karvonen,Daniel  
Description: This is an intermediate course that requires that you've taken a year of college-level Finnish or have equivalent knowledge of the language. The main textbook for the course is ”Elaman suolaa: Suomen kielen alkeita 2” (chapters 21-30), which chronicles the humorous adventures of a group of friends and focuses on exposing students to spoken Finnish. Authentic materials reflecting Finnish culture (e.g., songs, movies, TV news broadcasts, newspaper articles, etc.) will also be used. Much of class time will focus on interactive communicative activities designed to activate the material learned in class, with students working in groups or pairs. Qualified students may register for this course under the 4003 designator for 2 credits (and reduced tuition).  
Style: 20% Lecture, 80% Small Group Activities. interactive exercises
FIN 3011 Advanced Finnish
3 credit(s); prereq 1004 or 4044;
Instructor: Karvonen, Daniel
Description: This course is designed to refine advanced students' skills in oral and written expression in Finnish. Advanced grammatical constructions characteristic of written Finnish will be explored via newspaper articles and short stories, with time spent analyzing the constructions together in class. Each student will also get the chance to provide an oral news summary of some current event in Finland every other week. The majority of class time will center around class discussion, giving students plenty of speaking practice. There will be three essays, three take-home exams, and a final class presentation on some aspect relating to Finnish culture.
Style: 10% Lecture, 90% Discussion.
Grading: 24% reports/papers, 30% quizzes, 6% in-class presentation, 28% class participation, 12% other evaluation. oral news summaries
Exam Format: short answer, essay

FIN 4001 Beginning Finnish
2 credit(s); prereq 1004 in another language or passing score on LPE or grad student; Credit will not be granted if credit has been received for: FIN 1001;
Instructor: Karvonen, Daniel
Description: Come study the language of sauna, Sibelius, and Nokia! Finnish is unrelated to most languages in Europe and may seem a bit exotic at first. There are no words for "the" or "a," and there's only a single pronoun for both "he" and "she." But you can learn to spell Finnish in just a few minutes, since words in Finnish are written pretty much like they are pronounced. Much of class time will focus on interactive communicative activities, with students working in pairs or in groups. You'll also learn about Finnish culture via video clips of real-life situations in Finland and other authentic cultural materials such as songs and movies. The main textbook for the course is "Supisuomea" (chapters 1-5), which is accompanied by CDs and a video, which will be used in class. You'll also learn both the written and spoken varieties of Finnish, which are quite different from one another. Qualified students may register for this course under the 4001 designator for 2 credits (and reduced tuition).
Style: 25% Lecture, 5% Film/Video, 70% Small Group Activities. interactive exercises
Grading: 10% final exam, 21% reports/papers, 30% quizzes, 6% in-class presentation, 21% class participation, 12% other evaluation. oral interviews
Exam Format: essay, short answer, matching

FIN 4003 Intermediate Finnish
2 credit(s); prereq 1004 in another language or passing score on LPE or grad student; Credit will not be granted if credit has been received for: FIN 1003;
Instructor: Karvonen, Daniel
Description: This is an intermediate course that requires that you've taken a year of college-level Finnish or have equivalent knowledge of the language. The main textbook for the course is "Elaman suolaa: Suomen kielen alkeita 2" (chapters 21-30), which chronicles the humorous adventures of a group of friends and focuses on exposing students to spoken Finnish. Authentic materials reflecting Finnish culture (e.g., songs, movies, TV news broadcasts, newspaper articles, etc.) will also be used. Much of class time will focus on interactive communicative activities designed to activate the material learned in class, with students working in groups or pairs. Qualified students may register for this course under the 4003 designator for 2 credits (and reduced tuition).
Style: 20% Lecture, 80% Small Group Activities. interactive exercises
Grading: 10% final exam, 18% reports/papers, 28% quizzes, 5% in-class presentation, 29% class participation, 10% other evaluation. oral interviews
Exam Format: short answer, essay

FW 1001 Orientation in Fisheries, Wildlife, and Conservation Biology
A-F only, 1 credit(s);
Instructor: Cuthbert, Francesca J
Description: Students may contact the instructor or department for information.
Exam Format: short answer, essay

FW 1901 Freshman Seminar: Carp and Culture
3 credit(s), max credits 3, 1 completion allowed; prereq Fr with no more than 29 cr; Meets CLE req of Environment;
Instructor: Simons, Andrew M.
Description: Students may contact the instructor or department for information.

FW 2001 Introduction to Fisheries, Wildlife, and Conservation Biology
3 credit(s); prereq BIOL 1001 or BIOL 1009;
Instructor: Perry, Jim A
Description: Humans rely on fish and wildlife resources to support a wide range of values. As we make decisions about management of landscapes, we are making decisions about conservation, about the future of our fish and wildlife. This class helps students become more informed citizens by learning about fish, wildlife and other forms of biodiversity, including single species, populations, ecosystems, and landscape approaches. The class is experiential and highly interactive, using decision-case studies to explore current issues.
Style: 30% Lecture, 50% Discussion, 20% Student Presentation.
Grading: 25% mid exam, 25% final exam, 25% additional semester exams, 15% in-class presentation, 10% class participation.

FW 4001 Biometry
A-F only, 4 credit(s); prereq Math 1031;
Instructor: Cohen, Yosef
Description: Students may contact the instructor or department for information.
Style: 30% Lecture, 30% Discussion, 40% Laboratory.
Grading: 15% mid exam, 20% final exam, 20% reports/papers, 10% special projects, 10% quizzes, 10% class participation, 15% problem solving.
Exam Format: Essay

FW 4136 Ichthyology
4 credit(s); prereq Biol 1001 or Biol 2012;
Instructor: Simons, Andrew M.
Description: This course covers the biology and diversity of fishes. Topics covered include evolution, classification, anatomy, locomotion, and behavior. Fishes are a large and diverse group of organisms; therefore these topics will be covered at a general level, focussing in large part on the constraints imposed by the aquatic environment. The laboratory will cover anatomy and diversity of fishes, focussing on the Minnesota fauna. Students will learn the use of dichotomous keys to identify Minnesota fishes and will be expected to learn common and game species by sight. There will be two afternoon field trips during the semester. Assessment is based on 3 lecture exams, 2 lab exams, 1 paper, and participation in lab. Lecture notes and other supplementary material will be available on the web. Students in this class are usually upper level undergraduates or graduate students.

FW 4291 Independent Study: Fisheries
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent;
Instructor: STAFF
Description: Individual field, library, and laboratory research in fisheries. Primarily for majors. Students work on special projects.
Individual field, library, and lab research in fisheries biology. 

Style: special projects and individual directed study

Grading: 100% reports/papers. 100% written reports/papers; may have occasional exceptions

FW 4391 Independent Study: Wildlife
1-5 credit(s), max credits 5, 1 completion allowed; prereq inst consent ;
Instructor: STAFF
Description: Individual field, library, and laboratory research in wildlife. Primarily for majors. Students work on special projects. Individual field, library and lab research in fisheries biology.
Style: special projects and individual directed study; visitation to field sites if appropriate
Grading: 100% reports/papers.

FW 5603W Habits and Regulation of Wildlife
A-F only, 3 credit(s); prereq Biol 3407; Meets CLE req of Writing Intensive;
Instructor: Forester,James Derwin
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Lang,Jeffrey W
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Swain,Edward B
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Newman,Raymond M
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Pereira PhD,Donald L.
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Spangler,George R
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Perry,Jim A
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Kapuscinski PhD,Anne R
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Cohen,Yosef
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Adelman,Ira R
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Pastor,John Joseph
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Sorensen,Peter William
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Anderson,Charles S
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Hornbach,Daniel J
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Richards,Carl
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Simons,Andrew M.
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Strong,Ellen E
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Fulton,David C
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Ankley,Gerald T
Description: Student may contact the instructor or department for information.

FW 8452 Conservation Biology
A-F only, 3 credit(s);
Instructor: Polasky,Stephen
Description: Student may contact the instructor or department for information.

FW 8459 Stream and River Ecology
FW 8494 Research in Wildlife
1-4 credit(s), max credits 4, 1 completion allowed; prereq instr consent;
Instructor: Gutierrez, Ralph J
Description: Student may contact the instructor or department for information.

FW 8494 Research in Wildlife
1-4 credit(s), max credits 4, 1 completion allowed; prereq instr consent;
Instructor: Blair, Robert B
Description: Student may contact the instructor or department for information.

FW 8494 Research in Wildlife
1-4 credit(s), max credits 4, 1 completion allowed; prereq instr consent;
Instructor: Johnson, Douglas H
Description: Student may contact the instructor or department for information.

FSCN 1012 Sports Nutrition
2 credit(s);
Instructor: Brady, Linda J
Description: This course is completely online and addresses: 1. physiological function and metabolic fate of nutrients ingested by active individuals to improve athletic performance and maintain weight; 2. impact on physiology of ergogenic aids and dietary supplements. An online class orientation via UM Connect will be available on the class website, as well as the syllabus and documents explaining website function. Weekly multiple choice quizzes on one chapter are completed online. Short answer critical thinking questions are submitted via the class website each week. Student materials available online include study guides, power point presentation, and UM Connect presentation for each chapter. Students with some biology or physiology background will have some advantage, as nutrition is multi-disciplinary. This course functions best for students who can manage their time effectively and are comfortable with a mix of multiple choice quizzes and “thought” questions that are more open ended; it does not function well as a 2 credit “add on” to an already busy schedule. We have assignments due the first week, so students who add the class later have some disadvantage.
Style: 100% Web Based. Web based class
Grading: 50% quizzes, 50% reflection paper. Short answer critical thinking questions on papers related to the week's topic
Exam Format: Quiz format is multiple choice

FSCN 1013 Dietary Supplements: scientific, regulatory, and cultural aspects
3 credit(s); Meets CLE req of Civic Life and Ethics;
Instructor: Brady, Linda J
Description: The course will cover: 1) Use of dietary supplements in the U.S.; how U.S. public demand drives industry and government. 2) The development and implementation of the law--Dietary Supplements Health and Education Act. 3) DSHEA and “safety testing,” and risk assessment: How much safety data is needed before marketing? 4) Ethics of marketing. 5) FTC responsibilities and the ethics of advertising. 6) Other cultures as sources of supplements; transference of use between cultures. 7) Issues and ethics of intellectual property rights of indigenous cultures. 8) Racial use of dietary supplements for health and sports performance; ethical decisions in use for athletic performance. 9) Use of supplements for weight loss. A UM Connect audio video orientation is provided to explain the syllabus and assignment submission and academic integrity; registered students will receive information on orientation about a week before classes start. For each weekly unit, an online UM Connect presentation of the week's power point is also available to complement weekly readings. Students critically evaluate information on supplements and submit weekly homework and critical thinking questions online via the class website; these are graded online and returned. This course functions best for students who can manage their time effectively and are comfortable with a mix of factual questions and “thought” questions (critical thinking) that are more open ended and require students to move beyond the readings into higher level thinking. There is no textbook; readings are online.
Style: 100% Web Based. totally web based
Grading: 50% written homework, 50% reflection paper. homework and critical thinking (reflection) questions
Exam Format: Quiz format is multiple choice

Food Science and Nutrition
225 Food Science & Nutrition

FSCN 1012 Sports Nutrition
2 credit(s);
Instructor: Brady, Linda J
Description: This course is completely online and addresses: 1. physiological function and metabolic fate of nutrients ingested by active individuals to improve athletic performance and maintain weight; 2. impact on physiology of ergogenic aids and dietary supplements. An online class orientation via UM Connect will be available on the class website, as well as the syllabus and documents explaining website function. Weekly multiple choice quizzes on one chapter are completed online. Short answer critical thinking questions are submitted via the class website each week. Student materials available online include study guides, power point presentation, and UM Connect presentation for each chapter. Students with some biology or physiology background will have some advantage, as nutrition is multi-disciplinary. This course functions best for students who can manage their time effectively and are comfortable with a mix of multiple choice quizzes and “thought” questions that are more open ended; it does not function well as a 2 credit “add on” to an already busy schedule. We have assignments due the first week, so students who add the class later have some disadvantage.
Style: 100% Web Based. Web based class
Grading: 50% quizzes, 50% reflection paper. Short answer critical thinking questions on papers related to the week's topic
Exam Format: Quiz format is multiple choice

FSCN 1013 Dietary Supplements: scientific, regulatory, and cultural aspects
3 credit(s); Meets CLE req of Civic Life and Ethics;
Instructor: Brady, Linda J
Description: The course will cover: 1) Use of dietary supplements in the U.S.; how U.S. public demand drives industry and government. 2) The development and implementation of the law--Dietary Supplements Health and Education Act. 3) DSHEA and “safety testing,” and risk assessment: How much safety data is needed before marketing? 4) Ethics of marketing. 5) FTC responsibilities and the ethics of advertising. 6) Other cultures as sources of supplements; transference of use between cultures. 7) Issues and ethics of intellectual property rights of indigenous cultures. 8) Racial use of dietary supplements for health and sports performance; ethical decisions in use for athletic performance. 9) Use of supplements for weight loss. A UM Connect audio video orientation is provided to explain the syllabus and assignment submission and academic integrity; registered students will receive information on orientation about a week before classes start. For each weekly unit, an online UM Connect presentation of the week's power point is also available to complement weekly readings. Students critically evaluate information on supplements and submit weekly homework and critical thinking questions online via the class website; these are graded online and returned. This course functions best for students who can manage their time effectively and are comfortable with a mix of factual questions and “thought” questions (critical thinking) that are more open ended and require students to move beyond the readings into higher level thinking. There is no textbook; readings are online.
Style: 100% Web Based. totally web based
Grading: 50% written homework, 50% reflection paper. homework and critical thinking (reflection) questions
Exam Format: Quiz format is multiple choice

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
FSCN 1102 Food: Safety, Risks, and Technology
OPT No Aud, 3 credit(s); Meets CLE req of Civic Life and Ethics
Instructor: Diez-Gonzalez,Francisco
Description: Introduction to the inherent risks and safety of the food supply and the use of public policy, and food technology to reduce these risks. The course will survey microbiological, chemical and environmental hazards, government and industry controls used to insure food safety including the new U.S. Food Safety Initiative, and public perception of those risks. The course will emphasize government regulations with respect to adulteration, food safety and misbranding. It will overview the biological, microbiological, physical and chemical deterioration of foods and will describe some of the technologies to control food spoilage. Thermal processing and irradiation as examples of the technologies used in food processing to reduce risk and ensure a safe food supply. This course will focus on current food safety issues and the magnitude of the overall food safety situation. The student will learn about timely issues such as genetically modified foods, food allergies, prion diseases and approaches to biosecurity. This course satisfies the CLE Citizenship and Public Ethics theme and emphasizes public policy making, critical thinking skills and internet use. The course URL is https://vista.umn.edu/webct.
Exam Format: Supervised, in-person (not online) exams

FSCN 3102 Introduction to Food Science
3 credit(s); prereq Chem 1022;
Instructor: Vickers,Zata M
Description: Course Description: This course examines why foods change when you heat them, freeze them, mix them together, bake them, etc. Students work in small groups to prepare several different versions of common foods and explain the chemistry responsible for the differences they observe among them. Intended for students majoring in Nutrition or Food Science and others interested in the science of food preparation. Student learner outcomes: Explain the functions of major food ingredients and preparation steps in a variety of food systems. Describe changes in food resulting from different preparation methods and explain these changes based on knowledge of the physical and chemical changes. By the end of the course students will be able to change recipes to accommodate a variety of dietary restrictions. Laboratory notebooks, quizzes, exams and the final exam provide the assessment for these outcomes. Evaluate the quality of food products using sensory descriptions and objective methods of analysis. Laboratory notebooks provide the assessment for this. Produce and explain the chemical or physical basis for differences in food quality resulting from variations in preparation and/or ingredients. Laboratory notebooks, quizzes and exams provide the assessment for this.
Style: 40% Lecture, 25% Discussion.
Grading: 50% mid exam, 15% final exam, 14% special projects, 25% laboratory evaluation.
Exam Format: multiple choice, matching

FSCN 2021 Introductory Microbiology
A-F only, 4 credit(s);
Instructor: O'Sullivan,Daniel J
Description: This course is intended primarily for undergraduates who require a basic knowledge of microbiology and how it impacts their everyday life. It will serve as a broad introduction to the diverse world of bacteria, fungi, and viruses; their role as agents of human diseases (from flesh eating bacteria to AIDS) and how humans fight back; their roles in food spoilage, food borne diseases and how to control them; their beneficial roles in food preservation, health promotion (probiotics), preventing plant diseases, food/drug production (biotechnology), cleaning up oil spills (bioremediation). The course will also introduce the student to the basics of genetic engineering and its present and future potential roles in food, agriculture and medicine.
Style: 60% Lecture, 40% Laboratory.
Grading: 35% mid exam, 30% final exam, 10% quizzes, 25% laboratory evaluation.
Exam Format: multiple choice and short answer

University of Minnesota - Course Guide for Twin Cities Campus Fall 2010
This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
Schedule.

Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule. This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online University of Minnesota - Course Guide for Twin Cities Campus Fall 2010.

FSCN 4312W Food Analysis
3 credit(s); prereq 4112, STAT 3011; Meets CLE req of Writing Intensive;
Instructor: Ismail.Baraeem
Description: The course covers major analytical tools needed for any investigation in food Science and technology, whether by the food industry, governmental agencies, or universities.

FSCN 4312W Food Analysis
4 credit(s); prereq 4112, STAT 3011; Meets CLE req of Writing Intensive;
Instructor: Ismail.Baraeem
Description: The course covers major analytical tools needed for any investigation in food Science and technology, whether by the food industry, governmental agencies, or universities. Specifically, the course covers: application of quantitative and qualitative physical, chemical and instrumental methods used for analysis and examination of food constituents, ingredients and products; sensory evaluation techniques; evaluation of methods and interpretation of results. The course covers methods used for: compositional analysis of foods; chemical characterization of foods and food constituents; spectroscopic and chromatographic analysis used for the detection, identification and quantification of food macro- and micro- components; examination of the physical properties of foods; and sensory evaluation of food products. In this course the students will learn to identify the appropriate methods of analysis based on the investigation purpose, which can be nutrition labeling, quality control, product development, or scientific research. This course is intended for upper division undergraduate and graduate students majoring in Food Science.

FSCN 4345 Flavor Technology
3 credit(s); prereq 4112, 4121, 4331;
Instructor: Peterson,Devin Grant
Description: Student may contact the instructor or department for information.

FSCN 4345 Flavor Technology
3 credit(s); prereq 4112, 4121, 4331;
Instructor: Peterson,Devin Grant
Description: Student may contact the instructor or department for information.

FSCN 4349 Food Science Capstone
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq Concurrent enrollment in another [4xxx or 5xxx]
FSCN course, food science major, sr;
Instructor: Csallany,A Saari
Description: Student may contact the instructor or department for information.

FSCN 4612 Advanced Human Nutrition
4 credit(s); prereq 1112, CHEM 1022, [PHSL 3051 or ANSCI 3301];
Instructor: Slavin,Joanne Louise
Description: This course covers how we learn about normal human nutrition. We discuss nutrient requirements and how these are determined. Emphasis is on the physiological basis for nutrition. Digestion and absorption of food are emphasized. Sports nutrition and energy balance are also covered extensively. Students will review a nutrition topic and write a research proposal. We also cover dietary recommendations and nutrition policy. The class is designed for undergraduates in nutrition who have completed an introductory nutrition class.
Style: 75% Lecture, 25% Discussion.
Grading: 50% mid exam, 20% final exam, 20% reports/papers, 10% class participation.
Exam Format: multiple choice, true/false

FSCN 4621W Nutrition and Metabolism
4 credit(s); prereq 4612, BioC 3021, Phsl 3051; Meets CLE req of Writing Intensive;
Instructor: Chen,Xiaoli
Description: This course is designed to provide students with an understanding of carbohydrate, lipid and protein metabolism. Emphases are on main metabolic pathways of three macronutrients and their interrelationships. Main concepts to be introduced include anabolic, catabolic, and amphibolic metabolism and regulation of carbohydrate, lipid and protein. These concepts will assure an understanding of how macronutrient metabolism is regulated to fulfill energy needs for maintaining the body's metabolic and physiological functions. A variety of activities such as small and large group discussions, quizzes, written reports or papers, etc. will be used to prepare students to evaluate scientific discoveries and developments that affect their lives, and formulate opinions about related issues.
Style: 90% Lecture, 10% Discussion.
Grading: 24% mid exam, 20% final exam, 20% reports/papers, 14% quizzes, 16% other evaluation. homework
Exam Format: multiple choice and short answer
FR 4664 Senior Capstone: Becoming a Registered Dietitian A-F only, 1 credit(s); prereq [4665 or Concurrent registration is required (or allowed) in 4665], Nutrition/dietetics subplan of nutrition major] or instr consent ;
Instructor: Corrie Lynn
Description: Student may contact the instructor or department for information.

FR 4665 Medical Nutrition Therapy I A-F only, 3 credit(s); prereq 4612, Phsl 3051, BioC 3021;
Instructor: Twalt, Christine M
Description: Student may contact the instructor or department for information.

FR 5441 Introduction to New Product Development 2 credit(s); prereq 4111, 4331;
Instructor: Schoenfuss PhD, Tonya C
Description: Student may contact the instructor or department for information.

FR 3131 General Seminar S-N only, 1 credit(s), max credits 2; prereq instr consent;
Instructor: Vanderventer, J
Description: Student may contact the instructor or department for information.

FR 8330 Research Topics 1 credit(s), max credits 6, 6 completions allowed;
Instructor: Cariad-Barrett, Anna
Description: Student may contact the instructor or department for information.

FR 8336 Lipid Chemistry and Rancidity of Foods 2 credit(s); prereq 4112;
Instructor: Csallany, A Saari
Description: Student may contact the instructor or department for information.

FR 3104 Forest Ecology A-F only, 4 credit(s); prereq Biol 1001 or 1009; 1 semester college chemistry recommended Weekend field trip (required); Credit will not be granted if credit has been received for: FR 5104;
Instructor: Montgomery, Rebecca Anne
Description: Ecology, the study of the interactions of organisms and their environment, forms the essential foundation of the management and conservation of the world’s ecosystems. This course examines basic ecological principles through the lens of forest ecosystems, exploring the theory and practice of ecology at various levels of organization from individuals to populations, communities and ecosystems. At each level we examine past and current theoretical advances and use case studies to evaluate the impacts of increasing human domination of global systems on forested ecosystems. The course covers diverse topics including global climate change; individual and population growth; community assembly; invasive species; biodiversity; and alteration of water, carbon and nutrient cycles. During two class periods per week we explore forest ecology through a combination of lecture, group learning and problem solving, and discussion. Labs include group research projects and trips to local natural areas, urban forests, and the north shore of Lake Superior. Lab sessions are designed to complement and reinforce material covered in regular class periods. Style: 40% Lecture, 30% Laboratory, 25% Small Group Activities, 5% Field Trips. Cooperative group learning activities. Laboratory involves field trips and data collection in forests around the metro area. Grading: 30% mid exam, 20% final exam, 5% reports/papers, 15% special projects, 20% class participation. Class participation includes cooperative group work, quizzes, minute papers, in-class writing, quizzes. The special project is your lab project presentation (oral or poster format).

FR 3114 Hydrology and Watershed Management 3 credit(s); prereq [Biol 1001 or BIOL 1009, CHEM 1011 or CHEM 1015/1017 or CHEM 1021] or instr consent ; Credit will not be granted if credit has been received for: FR 5114;
Instructor: Brooks, Kenneth N
Description: Introduction to the hydrologic cycle and water resources with an emphasis on rural watersheds. Applications of hydrologic concepts to evaluate impacts of land use and management on water yield, storm flow, flooding, erosion, sedimentation, and stream channel - riparian processes. The role of hydrologic information in achieving integrated watershed management is emphasized throughout the course. State, national and international examples are presented.

FR 3131 Geographical Information Systems (GIS) for Natural Resources A-F only, 4 credit(s); prereq Soph or jr or sr; Credit will not be granted if credit has been received for: FR 5131; Meets CLE req of Technology and Society;
Instructor: Jenks, Andrew Carl
Description: FR 3131 is an introduction to Geographical Information Systems, focusing on spatial data development and analysis in the science and management of natural resources. Topics covered include basic data structures, data sources, data collection, data quality, geodesy and map projections, spatial and tabular data analyses, digital elevation data and terrain analyses, cartographic modeling, and cartographic layout.
FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: Enzler, Sherry Anne
Description: Student may contact the instructor or department for information.

FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: Vogt, Carl Eugene
Description: Student may contact the instructor or department for information.
FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: Bauer, Marvin E
Description: Study/project on topic of personal interest in consultation with faculty member. Initial proposal, reports of accomplishments.

FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: Johnson, Gary
Description: Study/project on topic of personal interest in consultation with faculty member. Initial proposal, reports of accomplishments.

FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: Frelich, Lee E
Description: Study/project on topic of personal interest in consultation with faculty member. Initial proposal, reports of accomplishments.

FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: Carlson, Stephen Paul
Description: Study/project on topic of personal interest in consultation with faculty member. Initial proposal, reports of accomplishments.

FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: Brooks, Kenneth N
Description: Study/project on topic of personal interest in consultation with faculty member. Initial proposal, reports of accomplishments.

FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: Bolstad, Paul V
Description: Study/project on topic of personal interest in consultation with faculty member. Initial proposal, reports of accomplishments.

FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: David, Andrew J
Description: Study/project on topic of personal interest in consultation with faculty member. Initial proposal, reports of accomplishments.

FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: D’Amato, Anthony William
Description: Study/project on topic of personal interest in consultation with faculty member. Initial proposal, reports of accomplishments.

FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: Davenport, Mae Allen
Description: Student may contact the instructor or department for information.

FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: Stafford, Susan G
Description: Student may contact the instructor or department for information.

FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: Montgomery, Rebecca Anne
Description: Study/project on topic of personal interest in consultation with faculty member. Initial proposal, reports of accomplishments.

FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: Becker, Dennis R
Description: Study/project on topic of personal interest in consultation with faculty member. Initial proposal, reports of accomplishments.

FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 completions allowed; prereq instr consent ;
Instructor: Knight, Joe
Description: Study/project on topic of personal interest in consultation with faculty member. Initial proposal, reports of accomplishments.

FR 5104 Forest Ecology
A-F only, 4 credit(s); prereq [[Biol 1001 or 1009], grad student] or instr consent ; 1 semester college chemistry recommended Weekend field trip (required); Credit will not be granted if credit has been received for: FR 3104; Instructor: Montgomery, Rebecca Anne
Description: Ecology, the study of the interactions of organisms and their environment, forms the essential foundation of the management and conservation of the world’s ecosystems. This course examines basic ecological principles through the lens of forest ecosystems, exploring the theory and practice of ecology at various levels of organization from individuals to populations, communities and ecosystems. At each level we examine past and current theoretical advances and use case studies to evaluate the impacts of increasing human domination of global systems on forested ecosystems. The course covers diverse topics including global climate change; individual and population growth; community assembly; invasive species; biodiversity; and alteration of water, carbon and nutrient cycles. During two class periods per week we explore forest ecology through a combination of lecture, group learning and problem solving, and discussion. Labs include group research projects and trips to local natural areas, urban forests, and the north shore of Lake Superior. Lab sessions are designed to complement and reinforce material covered in regular class periods. At the graduate level, students work in a graduate cooperative learning group during class periods, design an interactive learning activity and participate in an weekly literature discussion group.
Style: 15% Lecture, 20% Discussion, 50% Laboratory.
Graduated group learning activities
Grading: 20% mid exam, 15% final exam, 20% reports/papers, 15% special projects, 3% quizzes, 5% in-class presentation, 20% class participation, 3% laboratory evaluation.
Exam Format: Graduate exams will be essay format.

FR 5114 Hydrology and Watershed Management
3 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: FR 3114; Instructor: Brooks, Kenneth N
Description: Introduction to the hydrologic cycle and water resources with an emphasis on rural watersheds. Applications of hydrologic concepts to evaluate impacts of land use and management on water yield, storm flow, flooding, erosion, sedimentation, and stream channel - riparian processes. The role of hydrologic information in achieving integrated watershed management.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
management is emphasized throughout the course. State, national and international examples are presented.

FR 5131 Geographical Information Systems (GIS) for Natural Resources  
A-F only, 4 credit(s); prereq Grad student or instr consent;  
Credit will not be granted if credit has been received for: FR 3131;  
Instructor: Jenks, Andrew Carl  
Description: Introduction to GIS. Focuses on natural resources. Data structures, sources, collection, and quality. Lab exercises introduce geodesy, map projections, spatial analyses, and cartographic modeling.

FR 5204 Landscape Ecology and Management  
A-F only, 3 credit(s); prereq Grad student or instr consent;  
Credit will not be granted if credit has been received for: FR 3204;  
Instructor: Reich, Peter Bernard  
Description: This course is an introduction and survey of landscape ecology. The major theme of the class is the role of spatial configuration on ecological patterns and processes. We examine the landscape ecology in its application to research, analysis, conservation, and management. Topics include: sources of landscape pattern, introduction to landscape quantification, ecological scale, population dynamics, reserve design, and patch dynamics, and disturbance. Special topics are introduced on an annual basis.

FR 5204 Landscape Ecology and Management  
A-F only, 3 credit(s); prereq Grad student or instr consent;  
Credit will not be granted if credit has been received for: FR 3204;  
Instructor: Frelich, Lee E  
Description: This course is an introduction and survey of landscape ecology. The major theme of the class is the role of spatial configuration on ecological patterns and processes. We examine the landscape ecology in its application to research, analysis, conservation, and management. Topics include: sources of landscape pattern, introduction to landscape quantification, ecological scale, population dynamics, reserve design, and patch dynamics, and disturbance. Special topics are introduced on an annual basis.

FR 5228 Advanced Assessment and Modeling  
A-F only, 3 credit(s); prereq 3218, Math 1272, Stat 5021;  
Instructor: Burk, Thomas Edward  
Description: Student may contact the instructor or department for information.

FR 5262 Remote Sensing of Natural Resources and Environment  
4 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: FR 3262;  
Instructor: Knight, Joe  
Description: Principles and techniques of remote sensing and its applications to mapping and monitoring land/water resources from local to global scales. Forest and natural resource inventory. Forest cover and soil mapping. Land use and global change analysis. Lab provides hands-on experience working with aerial photography and digital imagery using the Imagine image processing software package.

FR 5264 Advanced Forest Management Planning  
3 credit(s); prereq 3471 or instr consent;  
Instructor: Hoganson, Howard M  
Description: Applied models for forest planning to integrate forest resource conditions and uses. Scales range from tactical stand-level management to strategic forest-wide and landscape-level planning and regional timber supply analysis. Understanding optimization models and heuristic techniques as tools for trade-off and sensitivity analyses of alternative management policies and goals. Integrating sustainable timber production with desirable future conditions and spatial structure or biodiversity objectives. Practical problems and case studies involving recent large-scale applications. Offered summer and fall.

FR 8101 Research Problems: Physiological Ecology  
1-5 credit(s), max credits 10, 10 completions allowed; prereq instr consent;  
Instructor: Reich, Peter Bernard  
Description: Independent research under faculty guidance.

FR 8101 Research Problems: Physiological Ecology  
1-5 credit(s), max credits 10, 10 completions allowed; prereq instr consent;  
Instructor: Montgomery, Rebecca Anne  
Description: Student may contact the instructor or department for information.

FR 8102 Research Problems: Forest-Tree Genetics  
1-5 credit(s), max credits 5, 1 completion allowed;  
Instructor: David, Andrew J  
Description: Student may contact the instructor or department for information.

FR 8103 Research Problems: Forest Hydrology  
1-5 credit(s), max credits 5, 1 completion allowed;  
Instructor: Eckman, Karlyn  
Description: Student may contact the instructor or department for information.

FR 8104 Research Problems: Forest Ecology  
1-5 credit(s), max credits 5, 1 completion allowed;  
Instructor: Reich, Peter Bernard  
Description: Student may contact the instructor or department for information.

FR 8104 Research Problems: Forest Ecology  
1-5 credit(s), max credits 5, 1 completion allowed;  
Instructor: Frelich, Lee E  
Description: Student may contact the instructor or department for information.

FR 8104 Research Problems: Forest Ecology  
1-5 credit(s), max credits 5, 1 completion allowed;  
Instructor: Montgomery, Rebecca Anne  
Description: Student may contact the instructor or department for information.

FR 8104 Research Problems: Silviculture  
1-5 credit(s), max credits 5, 1 completion allowed;  
Instructor: D'Amato, Anthony William  
Description: Student may contact the instructor or department for information.

FR 8106 Research Problems: Urban Forestry--Biology and Management  
1-5 credit(s), max credits 5, 1 completion allowed;
FR 8201 Research Problems: Forest Economics
1-5 credit(s), max credits 5, 1 completion allowed;
Instructor: Becker,Dennis R
Description: Student may contact the instructor or department for information.

FR 8201 Research Problems: Forest Economics
1-5 credit(s), max credits 5, 1 completion allowed;
Instructor: Kilgore,Mike
Description: Student may contact the instructor or department for information.

FR 8201 Research Problems: Forest Economics
1-5 credit(s), max credits 5, 1 completion allowed;
Instructor: Bull,Thomas Edward
Description: Student may contact the instructor or department for information.

FR 8201 Research Problems: Forest Economics
1-5 credit(s), max credits 5, 1 completion allowed;
Instructor: Schneider,Ingrid Eleanor
Description: Student may contact the instructor or department for information.

FR 8201 Research Problems: Forest Economics
1-5 credit(s), max credits 5, 1 completion allowed;
Instructor: Davenport,Mae Allen
Description: Student may contact the instructor or department for information.

FR 8201 Research Problems: Forest Economics
1-5 credit(s), max credits 5, 1 completion allowed;
Instructor: Current,Dean Alan
Description: Student may contact the instructor or department for information.

FR 8204 Research Problems: Forest Policy
1-5 credit(s), max credits 5, 1 completion allowed;
Instructor: Baughman,Mel J.
Description: Student may contact the instructor or department for information.

FR 8204 Research Problems: Forest Policy
1-5 credit(s), max credits 5, 1 completion allowed;
Instructor: Kilgore,Mike
Description: Student may contact the instructor or department for information.

FR 8204 Research Problems: Forest Policy
1-5 credit(s), max credits 5, 1 completion allowed;
Instructor: Current,Dean Alan
Description: Student may contact the instructor or department for information.
FREN 1001 Beginning French
5 credit(s);
Instructor: STAFF
Description: This course is intended for students with NO previous study of French, or students who have not studied French in recent years (gap of 3 years or more). If you have more than two years of high school French completed within the last year or two, you should register for Fren 1022 which provides students with an accelerated review of Fren 1001 material followed by material covered in Fren 1002. For more information on placement, see your advisor or contact the Department of French and Italian. Fren 1001 is a theme-based course. Themes addressed in this course include: student life, family, education and employment. The text, “Deux Mondes,” 6th ed., is taught through multimedia and cultural readings. Fren 1002 is a theme-based course. Themes addressed in this course include: Francophone youth, food, geography, the environment, travel, education and employment. The text, “Deux Mondes,” 6th ed., is accompanied by an electronic workbook (Quia/Centro) with a variety of practice activities including listening ones, designed to be used by students outside of class. In the “Deux Mondes” textbook students will work with materials from Ch. 6 through Ch. 10. Since the majority of class is devoted to communication activities, class attendance is fundamental. Expect an average of 1.5 hours of outside preparation for each class session hour.
Style: Class Time: Mostly discussion and student involvement in pair/group activities.
Grading: 30% written exams, 15% oral exams, 15% final exam, 12% reports/papers, 12% special projects, 25% quiz, 12% pair activities.
Exam Format: All exams evaluate listening, vocabulary, grammar, writing, reading and culture. Oral skills are assessed in pair discussions.

FREN 1002 Beginning French
5 credit(s); prereq 1001 or equiv; Credit will not be granted if credit has been received for: FREN 4022;
Instructor: Estrem,Mary Elaine
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. In this course, you will go to the center of the French-speaking world--Paris--where you will learn French by participating in a story about a young French woman, Mireille Belleau, and a young American man, Robert Taylor, who develop an interest in each other. As their story unfolds, you will learn language for common social situations, such as ordering food and drink; making purchases; talking about one's interests and one's dreams; talking about one's studies; extending, accepting, and refusing invitations; and behaving politely at the dinner table.
You will learn to use past tenses, and you will see some of the famous sites in Paris. The language you learn in French 1001 will allow you to function in some social situations and begin your understanding of French grammar.
Style: This is a printed correspondence section.
Grading: 25% mid exam, 50% final exam, 25% written homework. The self-recordings are NOT GRADED UNLESS PART OF A QUIZ. The oral exercises are for practice and to check your pronunciation. The instructor may record corrections to your pronunciation. Lowest written and oral quiz scores are dropped.
Exam Format: Supervised, in-person exams.

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FREN 1003 Intermediate French
5 credit(s); prereq 1002 or Entrance Proficiency Test;
Instructor: STAFF
Description: Prereq: 1002 or 1022 or Entrance Proficiency Test
FREN 1003 is a theme-based course. Themes addressed in this course include: French media and cinema, the French resistance, wellness and health, current French family, societal and global issues. The text, "Deux Mondes," 6th ed., is accompanied by an electronic workbook (Quia/Centro) with a variety of practice activities including listening ones, designed to be used by students outside of class. In the "Deux Mondes" textbook students will work with materials from Ch. 11 through Ch. 14. They will also work with the film 'Le Chemin du Retour? available on the course site: the story of a young French journalist and her pursuit of the truth about her grandfather's past. Since the majority of class is devoted to communication activities, class attendance is fundamental. Expect an average of 1.5 hours of outside preparation for each class session hour.

Style: Mostly discussion and student involvement in pair/group activities
Grading: Grade: 15%: final exam, 20%: reports/papers, 6%: chapter quizzes, 7%: class participation, 32%: other evaluation: written exams (22.5%), writing assignments on movie, on-line writing assignments (9.5%), 15%: oral exams, 5%: workbook exercises.
Exam Format: Exam Format: Exams assess a student's listening, reading, speaking and writing proficiency and cultural knowledge and understanding. Oral exams are administered in pairs, written exams involve answering short questions and essay writing.

FREN 1004 Intermediate French
5 credit(s); prereq 1003 or Entrance Proficiency Test;
Instructor: STAFF
Description: This course is for those who have successfully passed Fren 1003 with a C- or better or have passed all sections of the EPT (Entrance Proficiency Test) for this level. This course continues the building of speaking, writing, listening and reading skills acquired during the first three semesters of French while expanding cultural awareness, knowledge and understanding of Francophone cultures. Emphasis is placed on reading, writing and culture. The theme of this course is that of cultural identity, addressed via discussion of food, family, education, work, nationality and diversity. A custom edition of "Ouvertures" (based on the 4th ed.) includes contemporary and literary texts. In this text students will learn material from Chapters 1 through 8, with emphasis on chapters 1, 2, 3, 6 and 7. A supplemental course pack includes activities to accompany video clips, as well as supplemental grammar/activities. Writing skills will be developed through process-writing essays. Several class sessions will allow students to work with audio-visual resources (mainly film clips) to develop their listening skills; the clips will also serve as a basis for cultural discussions. Email exchanges with native French speakers learning English will further enhance cultural knowledge. During enrollment in 1004 students who choose to, will have the opportunity to complete the Language Proficiency Exam (LPE) and earn a text line on their transcript endorsing their proficiency in French.

Exam Format: Exams assess a student's listening, reading, speaking and writing proficiency. Oral exams are administered in pairs, written exams involve answering short questions and essay writing.

FREN 1022 Accelerated Beginning French
5 credit(s); prereq 2 or more yrs high school French;
Instructor: STAFF
Description: Prereq: 2 or more yrs high school French This beginning French course for false beginners is intended for students who have previously studied French in high school or at a community college, or who are transfer students, while Fren 1001 is a course for students with no previous French studies. The Fren 1022 course begins with a review of Fren 1001 materials (Ch. preliminaire through Ch. 5 in "Deux Mondes" 6th ed.), followed by materials introduced in Fren 1002 (Ch. 6 through Ch. 10). In other words, the course allows students to learn first-year materials in one semester. Upon entering Fren 1022 students should be familiar with basic vocabulary related to daily life and daily survival situations, present and past tenses (please note: "passe compose" will be reviewed and "imparfait" will be introduced). Fren 1022 is a them-based course. Themes addressed in this course include: student life, family, recreation, housing, Francophone heritage in North-America, Francophone youth, food, geography, the environment, travel, education and employment. Students develop knowledge and understanding of Francophone practices and products through multimedia and cultural readings. The text, "Deux Mondes," 6th ed., is accompanied by an electronic workbook (Quia/Centro) with a variety of practice activities including listening ones, designed to be used by students outside of class. Since the majority of class is devoted to communication activities, class attendance is fundamental.

Style: Mostly discussion and student involvement in pair/group activities
Grading: 36% written exams, 15% oral exams, 13% final exam, 12% reports/papers, 10% special projects, 7% quizzes, 7% workbook exercises.
Exam Format: All exams evaluate listening, vocabulary, grammar, writing, reading and culture. Oral skills are assessed in pair discussions.

FREN 3015 Advanced French Grammar and Communication
2 credit(s); prereq 1004;
Instructor: Treece PhD, Rick
Description: This course will focus on both the theoretical and practical aspects of French pronunciation, with a strong emphasis on improving pronunciation. In the theoretical portion of the course, the major aspects of French pronunciation will be examined, with particular attention given to areas of contrast between French and English pronunciation. Students will learn to use symbols from the International Phonetic Alphabet in order to do phonetic transcription, i.e. representing French sounds with phonetic symbols. Another important theoretical component is learning the rules governing the correspondence between written letters and their pronunciation. In the practical portion of the course, students will be given extensive pronunciation practice so that they may identify and eliminate errors in their own pronunciation. NOTE: This is NOT a course in French conversation. This course is designed for non-native speakers of French and is a required course for students completing a French major under semesters. However, students with excellent pronunciation skills may gain exemption from this requirement by passing a practical pronunciation test.

Style: 10% Lecture, 10% Discussion, 80% Laboratory.
Grading: 10% final exam, 5% reports/papers, 20% quizzes, 10% class participation, 10% laboratory evaluation, 45% other evaluation.
Exam Format: short answer, multiple choice
FREN 3016 Advanced French Composition and Communication
3 credit(s); prereq 3015 or equiv or instr consent ;
Instructor: STAFF
Description: Fren 3015 is the first in a two-course sequence (with 3016) that combines an intensive review of grammar with a special focus on the articulation and organization of ideas through reading, writing, and textual analysis. In 3015, students will develop skills in a variety of writing forms (e.g., portrait, description, narration) while exploring selected cultural themes through written texts and film. Course requirements include exams as well as regular writing assignments, which usually involve one rewriting. In order to enroll in 3015, it is highly recommended that students have completed Fren 1004 with a minimum grade of B; transfer students should take the Language Proficiency Exam and receive a High Pass. For information on the LPE, see <a href="http://langtest.umn.edu/imdatesGPT.html">http://langtest.umn.edu/imdatesGPT.html</a>.

Style: Language instruction
Exam Format: Grammar exercises, essays

FREN 3011 Medieval Stories
3 credit(s); prereq 3101;
Instructor: Noakes, Susan J
Description: A study of the various kinds of tales, in verse and prose, that enlivened life in medieval France. Some are funny, some are scary: all offer a window into the daily life and shared beliefs of the time of the great cathedrals. This class requires no previous knowledge of the period; rather, the tales discussed will be treated as pathways to learning about the great achievements of French medieval culture. Students will emerge from the course with an increased understanding of the history of the various regions of France; of the history of French words and expressions; and of the roots of French culture, especially as it concerns behavioral ideals and relations among classes. Reading (in modern French translation, but with reference to the original Old French), class presentations, short papers and exams.

Style: 100% Discussion.
Grading: 15% mid exam, 30% final exam, 5% reports/papers, 5% quizzes, 15% in-class presentation, 30% class participation.
Exam Format: essay

FREN 3101W Introduction to French Literature
4 credit(s); prereq 3015 or equiv; Meets CLE req of Literature; meets CLE req of Writing Intensive;
Instructor: St Clair, Robert Austin
Description: This course is an introduction to literature and methods of literary analysis for students preparing a major or minor in French. This course treats selected works of French and Francophone literature from the Early Modern to the Modern Period. Students learn to identify the salient features of the major genres, to apply techniques of close textual reading, and to write critical analyses of poetry, fictional prose, and plays. Works are analyzed from various perspectives with a view to understanding their place in literary history and cultural context. Some key topics of the course will be subjectivity, language, narration, description, rhetorical figures, identity, power, and desire. Writing is an important component of this class; class discussions and oral assignments will focus not only on understanding literary works but also on how they function, so that students may apply skills developed through discussion to their written assignments.

FREN 3101W Introduction to French Literature
4 credit(s); prereq 3015 or equiv; Meets CLE req of Literature; meets CLE req of Writing Intensive;
Instructor: Sivert, Eileen B
Description: This course is an introduction to literature and methods of literary analysis for students preparing a major or minor in French. This course treats selected works of French and Francophone literature from the Early Modern to the Modern Period. Students learn to identify the salient features of the major genres, to apply techniques of close textual reading, and to write critical analyses of poetry, fictional prose, and plays. Works are analyzed from various perspectives with a view to understanding their place in literary history and cultural context. Some key topics of the course will be subjectivity, language, narration, description, rhetorical figures, identity, power, and desire. Writing is an important component of this class; class discussions and oral assignments will focus not only on understanding literary works but also on how they function, so that students may apply skills developed through discussion to their written assignments.

FREN 3101W Introduction to French Literature
4 credit(s); prereq 3015 or equiv; Meets CLE req of Literature; meets CLE req of Writing Intensive;
Instructor: Fichtel, Lauren E
Description: This course is an introduction to literature and methods of literary analysis for students preparing a major or minor in French. This course treats selected works of French and Francophone literature from the Early Modern to the Modern Period. Students learn to identify the salient features of the major genres, to apply techniques of close textual reading, and to write critical analyses of poetry, fictional prose, and plays. Works are analyzed from various perspectives with a view to understanding their place in literary history and cultural context. Some key topics of the course will be subjectivity, language, narration, description, rhetorical figures, identity, power, and desire. Writing is an important component of this class; class discussions and oral assignments will focus not only on understanding literary works but also on how they function, so that students may apply skills developed through discussion to their written assignments.

FREN 3101W Introduction to French Literature
4 credit(s); prereq 3015 or equiv; Meets CLE req of Literature; meets CLE req of Writing Intensive;
Instructor: Chaouat, Bruno
Description: Writing War in Modern France This course examines 19th and 20th century novels and novellas that deal with the depiction of war from the French Revolution to the Algerian War. We will begin with Balzac's "Colonel Chabert," a drama that takes place during the Restoration of the French monarchy and assesses the brutality of the First Empire and the Napoleonic Wars. We will then turn to Victor Hugo's novel "Quatre Vingt Treize," a book that explores the French Revolution, the Reign of Terror, and the Civil War in Brittany. Then, we will read excerpts from Louis-Ferdinand Celine's "Voyage au bout de la nuit." In this book, published in 1932, Celine tackles the inhumanity of modern warfare (WWI) and revolutionizes the French novel. Finally, we will read Algerian writer Assia Djebar's novel "L'Amour, la fantasia," a literary rhapsody that interweaves the memory of the conquest of Algeria from the 1830s and the Algerian war. The French novel will be used as a window on the complex history of 19th and 20th century France. Special attention will be paid to the mutations of novelistic prose from realism to modernism and postmodernism.

FREN 3501 Structure of French: Phonology
3 credit(s); prereq 3014, 3015, Ling 3001 or instr consent; Credit will not be granted if credit has been received for: FREN 5501;
Instructor: Kerr, Betsy Jean
Description: Advanced study of French
FREN 3650 Topics in French/ Francophone Cultures
3 credit(s), max credits 9, 3 completions allowed; prereq 3015;
Instructor: Sugnet, Charles J
Description: Student may contact the instructor or department for information.

FREN 3650 Topics in French/ Francophone Cultures
3 credit(s), max credits 9, 3 completions allowed; prereq 3015;
Instructor: Preckshot, J E
Description: "Francophone noir: Postcolonial Detective Fiction" investigates the ways in which French francophone writers have adapted the roman policier to diverse francophone political and cultural contexts, using the obligatory crime to expose and critique social, political or cultural or psychological forms of violence. Whether undertaken by police, private detectives, historians, journalists or otherwise-defined narrator serving as intermediary or interpreter of events, the ensuing investigation serves to unearth suppressed memory, reconcile problems of identity, reveal a fundamental social disorder, condemn an illegitimate exercise of authority, or contest cultural or esthetic norms. Through texts and films, this course will consider traditional models of the detective fiction genre and the ways in which this form of popular culture functions as a vehicle for cultural expression and political dissent. The reading list will include works by writers such as Didier Daeninckx (France), Yasmina Khadra (Algeria), Ken Bugul (Senegal), Henri Lopes (Congo) and Patrick Chamoiseau (Martinique), along with relevant theoretical and historical readings.

FREN 3671 Theaters of Pain: Violence and the Spectacular in Premodern France
3 credit(s); prereq 3015, Concurrent registration is required (or allowed) in 3016;
Instructor: Cherbuliez, Juliette
Description: Theaters of Pain: Violence and the Spectacular in Premodern France. Elaine Scarry has written that pain escapes us; it is essentially unrepresentable. Michel Foucault has shown that the social control of bodies is the foundation of our modern society -- especially in the absence of violence and the presence of words. After the Enlightenment, it is a social and civic ideal of democracies to see violence as abhorrent and against democracy. How then should we consider the ubiquitous paradox, across European centuries and cultures, of the spectacle of violence? This course offers a number of ways to think about why physical violence is so intimately linked to spectatorial representations. Our primary object of study the theater, at once symbol of the collective arena in which society attends to some of its most pressing problems and center of artistic endeavors that address these issues. What will interest us is how, in the premodern era, the repudiated presence of violence was something to be beheld. The nature of our gaze will vary, as we seek to understand what it means to be asked to watch violence? real, imagined, morally pure, immorally motivated, then as now.
Style: 20% Lecture, 10% Film/Video, 55% Discussion, 15% Small Group Activities.
Grading: 15% mid exam, 20% final exam, 40% reflection paper, 25% class participation.

FREN 4001 Beginning French
2 credit(s); prereq Grad student;
Instructor: STAFF
Description: This course is intended for students with NO previous study of French, or students who have not studied French in recent years (gap of 3 years or more). If you have more than two years of high school French completed within the last year or two, you should register for FREN 4022 which provides students with an accelerated review of FREN 4001 material followed by material covered in FREN 4002. For further information on placement, see your advisor or contact the Department of French and Italian. FREN 4001 is a theme-based course. Students develop their communication skills in French in different areas: speaking, writing, listening and reading. In addition to linguistic skills, students develop a better understanding of diverse aspects of French-speaking cultures. Themes addressed in the course include: student life, family, recreation, life in Francophone cities, housing, Francophone heritage in Northern America and Canada. The text, "Deux Mondes," 6th ed., is accompanied by an electronic workbook (Quia) with a variety of practice activities including listening ones, designed to be used by students outside of class. In the "Deux Mondes" textbook students will work with materials from "Premiere Etape" through Ch. 5. Since the majority of class is devoted to communication activities, class attendance is fundamental. Expect an average of 1.5 hours of outside preparation for each class session hour.
Style: Combination of whole-class and small-group activities.
Grading: 10% mid exam, 15% final exam, 12% reports/papers, 8% special projects, 10% quizzes, 25% other evaluation. written exams; 12% oral tests; 8% workbook exercises
Exam Format: All exams evaluate listening, vocabulary, grammar, writing, reading and culture.

FREN 4002 Beginning French
2 credit(s); prereq Grad student;
Instructor: STAFF
Description: FREN 4002 is intended for students who have completed FREN 4001 or the equivalent. In this course students build on the interpersonal, interpretive and presentational skills developed in first-semester French and on their knowledge and understanding of Francophone practices and products. Culture is taught through multimedia and cultural readings. FREN 4002 is a theme-based course. Themes addressed in this course include: Francophone youth, food, geography, the environment, education and employment. The text, "Deux Mondes," 6th ed., is accompanied by an electronic workbook (Quia/Centro) with a variety of practice activities including listening ones, designed to be used by students outside of class. In the "Deux Mondes" textbook students will work with materials from Ch. 6 through Ch. 10. Since the majority of class is devoted to communication activities, class attendance is fundamental. Expect an average of 1.5 hours of outside preparation for each class session hour.
Style: Mostly discussion and student involvement in pair/group activities.
Grading: 30% written exams, 15% oral exams, 13% final exam, 12% reports/papers, 13% special projects, 12% quizzes, 5% workbook exercises
Exam Format: All exams evaluate listening, vocabulary, grammar, writing, reading and culture. Oral skills are assessed in pair discussions.

FREN 4003 Intermediate French
2 credit(s); prereq Grad student;
Instructor: STAFF
Description: Prereq: 1002 or 1022 or Entrance Proficiency Test
Description: This course is designed for students who have completed FREN 1002 or 1022 with a C- or better or who have
successful passed the EPT (Entrance Proficiency Test) for this level. In this course students build on the interpersonal, interpretive and presentational skills developed in beginning French and on their knowledge and understanding of Francophone practices and products. Culture is taught through multimedia and cultural readings. Fren 1003 is a theme-based course. Themes addressed in this course include: French media and cinema, the French resistance, wellness and health, current French family, societal and global issues. The text, "Deux Mondes," 6th ed., is accompanied by an electronic workbook (Quia/Centro) with a variety of practice activities including listening ones, designed to be used by students outside of class. In the "Deux Mondes" textbook students will work with materials from Ch. 11 through Ch. 14. They will also work with the film 'Le Chemin du Retour?' available on the course site; the story of a young French journalist and her pursuit of the truth about her grandfather's past. Since the majority of class is devoted to communication activities, class attendance is fundamental. Expect an average of 1.5 hours of outside preparation for each class session.

Style: Mostly discussion and student involvement in pair/group activities.

Exam Format: Exams assess a student's listening, reading, speaking and writing proficiency. Oral exams are administered in pairs, written exams involve answering short questions and essay writing.

FREN 4004 Intermediate French
2 credit(s); prereq Grad student;
Instructor: STAFF
Description: This course is for those who have successfully passed Fren 1003 with a C- or better or have passed all sections of the EPT (Entrance Proficiency Test) for this level. This course continues the building of speaking, writing, listening and reading skills acquired during the first three semesters of French while expanding cultural awareness, knowledge and understanding of Francophone cultures. Emphasis is placed on reading, writing and culture. The theme of this course is that of cultural identity, addressed via discussion of food, family, education, work, nationality and diversity. A custom edition of "Ouvertures" (based on the 4th ed.) includes contemporary and literary texts. In this text students will learn material from Chapters 1 through 8, with emphasis on chapters 1, 2, 3, 6 and 7. A supplemental course pack includes activities to accompany video clips, as well as supplemental grammar activities. Writing skills will be developed through process-writing essays. Several class sessions will allow students to work with audio-visual resources (mainly film clips) to develop their listening skills; the clips will also serve as a basis for cultural discussions. Email exchanges with native French speakers learning English will further enhance cultural knowledge. During enrollment in 1004 students who choose to, will have the opportunity to complete the Language Proficiency Exam (LPE) and earn a text line on their transcript endorsing their proficiency in French.

Style: Mostly discussion and student involvement in pair/group activities.

Grading: 15% final exam, 20% reports/papers, 5% quizzes. 10% email exchanges and other assignments, 30% written exams, 15% oral exams, 5% workbook exercises

Exam Format: Exams assess a student's listening, reading, speaking and writing proficiency. Oral exams are administered in pairs, written exams involve answering short questions and essay writing.

FREN 4022 Accelerated Beginning French
2 credit(s); prereq Grad student; Credit will not be granted if credit has been received for: FREN 1002;
Instructor: STAFF
Description: Prereq: 2 or more yrs high school French This beginning French course for false beginners is intended for students who have previously studied French in high school or at a community college, or who are transfer students, while Fren 4001 is a course for students with no previous French studies. The Fren 4022 course begins with first-year materials (Ch. preliminaire through Ch. 5 in "Deux Mondes" 6th ed.), followed by materials introduced in Fren 4002 (Ch. 6 through Ch. 10). In other words, the course allows students to learn first-year materials in one semester. Upon entering Fren 4022 students should be familiar with basic vocabulary related to daily life and daily survival situations, present and past tenses (please note: "passe compose" will be reviewed and "imparfait" will be introduced). Fren 4022 is a theme-based course. Themes addressed in this course include: student life, family, recreation, housing, Francophone heritage in North-America, Francophone youth, food, geography, the environment, travel, education and employment. Students develop knowledge and understanding of Francophone practices and products through multimedia and cultural readings. The text, "Deux Mondes," 6th ed., is accompanied by an electronic workbook (Quia/Centro) with a variety of practice activities including listening ones, designed to be used by students outside of class. Since the majority of class is devoted to communication class attendance is fundamental. Expect an average of 1.5 hours of outside preparation for each class session.

Style: Mostly discussion and student involvement in pair/group activities.

Exam Format: Exams assess a student's listening, reading, speaking and writing proficiency. Oral exams are administered in pairs, written exams involve answering short questions and essay writing.

FREN 4101V Honors: Seminar in French Studies
3 credit(s); prereq Completion of all pre-elective requirements for major or permission of DUS; Meets CLE req of Writing Intensive;
Instructor: Wall-Romana, Christophe M
Description: Students design and carry out a substantial research project on a topic of their choice in the area of French and Francophone Studies (linguistics, literature or culture). The topic must be approved by the instructor, and the research paper will be written in consultation with the lead instructor and other faculty members in the Department, as appropriate. French majors who plan to complete the requirements for another CLA major (including senior paper) are not required to take Fren 4101, although they may wish to. These students must substitute 3 credits in advanced electives numbering 3111 or above in the French major for Fren 4101.

Style: 100% Discussion.
Grading: 75% reports/papers, 10% in-class presentation, 15% class participation.
Exam Format: Essay

FREN 4101W Seminar in French Studies
3 credit(s); prereq Completion of all pre-elective requirements for major or permission of DUS; Meets CLE req of Writing Intensive;
Instructor: Wall-Romana, Christophe M
Description: Students design and carry out a substantial research project on a topic of their choice in the area of French and Francophone Studies (linguistics, literature or culture). The topic must be approved by the instructor, and the research paper will be written in consultation with the lead instructor and other faculty members in the Department, as appropriate. French majors who plan to complete the requirements for another CLA major (including senior paper) are not required to take Fren 4101, although they may wish to. These students must substitute 3 credits in advanced electives numbering 3111 or above in the French major for Fren 4101.

Style: 100% Discussion.
Grading: 75% reports/papers, 10% in-class presentation, 15% class participation.
Exam Format: Essay

FREN 4970 Directed Readings
1-4 credit(s), max credits 9, 9 completions allowed; prereq instr consent;
Instructor: STAFF
Description: Meets unique requirements decided on by faculty member and student. Individual contracts are drawn up listing contact hours, number of credits, written and other work required.

FREN 5350 Topics in Literature and Culture: Remnants of the Epic: 20th Century
FREN 5501 Structure of French: Phonology
3 credit(s); prereq [Ling 3001 or Ling 5001], grad student;
Credit will not be granted if credit has been received for:
FREN 3501;
Instructor: Kerr,Betsy Jean
Description: 5501 meets together with 3501. Students enrolled in 5501 will do the same work as 3501 plus a research paper on some aspect of French phonetics or phonology. 3501/5501: Advanced study of French pronunciation/phonetics. Students must have already taken Fren 3014 or its equivalent, or have the instructor’s permission. The course comprises a detailed treatment of all aspects of the sound system of French. Readings, class lecture and discussion, assignments and tests in French. Material is often very detailed and requires memorization of complex rules, such as those governing deletion of schw or ‘mute e’, liaison, or the realization of mid-vowels. This course is first of all a linguistics course, i.e. its purpose is to understand how the sound system of French functions to produce meaning; the practical purpose of improving one’s accent is also an objective, but secondary to the ‘theoretical’ knowledge. Regular homework assignments verifying mastery of readings and transcription practice and other work with recordings available on course website. Comparison of English and French phonetics. Correspondence between orthography and pronunciation. Some attention to stylistic, regional, and free variation in French pronunciation. Requires use of IPA (International Phonetic Alphabet) to transcribe sounds. Especially recommended for students intending to teach French. The course will use Web VISTA.
Style: 25% Lecture, 75% Discussion.
Exam Format: short answer, problems, in French

FREN 8260 Critical Issues: Theatre
3 credit(s), max credits 12, 4 completions allowed;
Instructor: Cherbuliez,Juliette
Description: Recent theories of corporeality and engagement have tested a number of overlapping concepts in order to understand the relationship between subjectivity and the social in art and culture. From a butterian notion of performativity to the question of testimony and witnessing, the question of the physical rites and rituals that allow us to attend to human bodies, especially those in pain, plays an important role in contemporary cultural studies. The course will take as a point of departure theories of violence in French aesthetics. We will then examine instances in which the representation of violence acquires particular cultural, historical, or moral importance. We will also focus on several historical and aesthetic touchstones in the iconography of violence (such as Joan of Arc, Hercules, Antigone). Through these icons, we may consider different attitudes toward the notion of violence (mystical passion, violence as obscenity, the politics of state violence). While primary sources will be largely from the premodern periods (recits sanglants, Ovid, Rotrou, Hardy, Racine, Sade), the syllabus structure will allow room for us to explore participants’ interests from other disciplines or fields. Theoretical and critical readings will range (Scarry, Sonntag, Foucault, Enders, Artaud, Bataille, Agamben). As an 8000-level seminar, this course will be structured partly around the research interests of participants. Course materials in both French and English; seminar discussion in English.

FREN 8270 Critical Issues: Prose: Aisthesis in French Theory
3 credit(s), max credits 12, 4 completions allowed;
Instructor: Wall-Romana,Christophe M
Description: Poststructuralism opened new discourses on the social subject by rereading the major human sciences of phenomenology, psychoanalysis, linguistics, anthropology and Marxism. This seminar proposes to explore the place of aisthesis, as Levinas calls it, that is, sensation, perception and aesthetic experience, in the discourses of French theory. The term aisthesis is useful in bringing together corporeality and affect, sensory aspects of language and meaning, techno-sensorial mediations such as cinema, with the aesthetic theories attached to these various domains. The seminar’s project is to rethink aisthesis and aestheticisms against the wide suspicion through which both have been demoted in the wake of poststructuralism, and often by selectively reading poststructuralist works. We will ask questions such as: under what conditions can aisthesis and aesthetics become political and ethical? Is aisthesis pre-discursive or para-discursive? How do lived experiences inform and can be informed by theoretical discourse? Can and should cinema’s pre-forming the ‘naturalness’ of our lived horizon be bracketed? How might a study of French theory consider the aisthesis that is imminent in its writing praxis? The seminar conducted in English will follow such questions through e.g. Bataille, Merleau-Ponty, Levinas, Derrida, Foucault, Inigaray, Deleuze, Nancy and Ranciere, and their readers, while modulating the readings according to the research questions of participants.

FREN 8992 Directed Readings for Graduate Students
1-5 credit(s), max credits 25, 25 completions allowed; prereq instr consent;
Instructor: Preckshot,J E
Description: Student may contact the instructor or department for information.

FREN 8992 Directed Readings for Graduate Students
1-5 credit(s), max credits 25, 25 completions allowed; prereq instr consent;
Instructor: Franklin-Brown,Mary Frances
Description: Student may contact the instructor or department for information.

Gay, Lesbian, Bisexual, and Transgender Studies
425 Ford Hall

GLBT 1001 Introduction to GLBT Studies
3 credit(s); Meets CLE req of Diversity and Soc Justice US;
Instructor: Kumar,Elakshi
Description: Student may contact the instructor or department for information.

GLBT 3610 Topics in GLBT Studies: Queering Desire
2-4 credit(s), max credits 8;
Instructor: Puolitinen,Sara Lynne
Description: Student may contact the instructor or department for information.

GLBT 4101 Gender, Sexuality, and Politics in America
3 credit(s);
Instructor: Fajardo,Kale Bantigue
Description: Student may contact the instructor or department for information.
GWSS 1003W Women Write the World
3 credit(s); Meets CLE req of Literature; meets CLE req of Writing Intensive;
Instructor: Connolly, Patricia K
Description: What are women writers writing about? How are their writings influenced by the sociopolitical conditions from which they emerge? What do their writings tell us about current social conditions and women?s (varied) positions within them? How are they exploring these topics and themes? And how do their texts intersect with and complicate each other? This course seeks to familiarize students with women?s writings from a range of geopolitical locations in dialogue with contemporary issues and debates in feminist, gender, and queer theory and literary criticism. Throughout the semester we will encounter short stories, memoirs, graphic novels, poetry, spoken word, creative theorizing, and political essays. We will closely engage with how women writers utilize, subvert, and rewrite genre boundaries through a conscious employment of resistant language strategies. As we develop our critical reading skills through an active engagement with discourses of gender, race, ethnicity, class, nation, and sexuality, we will also pursue and problematize questions of voice, authority, representation, agency, and audience. While ?women?s writing? might at first appear to be a coherent category, women writers? divergent positionalities, experiences, political alliances, and writing strategies importantly problematize a unified notion of ?women?s experience,? thereby creating a lively, relevant, and important forum for public debate on contemporary social issues.
Style: 10% Lecture, 5% Film/Video, 60% Discussion, 15% Small Group Activities, 10% Student Presentation. In class writing exercises.
Grading: 60% reports/papers, 15% attendance, 5% reflection paper, 5% in-class presentation, 15% class participation.

GWSS 1004 Screening Sex: Visual and Popular Culture
3 credit(s); Meets CLE req of Arts/Humanities;
Instructor: Desai, Jigna
Description: The course is designed to enable students to analyze popular media critically, rather than as passive consumers of information. The students will be introduced not only to the structure and styles of media but also the politics of representation. With a focus on issues intertwining media with gender and sexuality, the course also offers examples of media that is produced in resistance to and outside of the mainstream culture, to illustrate the possibilities of alternative and more socially conscious representations. It is an introductory course that surveys various issues regarding gender and sexuality in the media, and equips students for more rigorous and complex inquiries in a higher level course on media analysis. Possible topics to be discussed are pornography, the male gaze, violence and cinema, censorship and ratings, new media, and empire
Style: 40% Lecture, 20% Film/Video, 20% Discussion, 10% Small Group Activities, 5% Student Presentation, 5% Guest Speakers.

GWSS 1902 Freshman Seminar: What's normal what's not a critical look at Autism
A-F only, 3 credit(s); prereq Fr with no more than 29 cr;
Meets CLE req of Diversity and Soc Justice US;
Instructor: Desai,Jigna
Description: Critical Look at Autism Anyone watching the news recently knows about the alarming increase in autism diagnoses, nationally and locally. What is autism? Are autistic brains broken or just different -- should autism be cured or accepted? In this course, we will explore how people are diagnosed as autistic and what that diagnosis means, medically, socially, and personally. We will investigate the broader political and social consequences of diagnoses that label people as being disabled or different from ?normal?, and where our societal ideas about normality come from. What is a ?disability?? What is ?normal?? We assume that we know what these things mean. However, many activists and scholars have been questioning how we determine the idea of an able or normal body and mind. In this course, we adopt the perspectives of critical and feminist disability studies to look specifically at the question of autism and what is a normal brain. Autism spectrum disorder (ASD) has been considered a disorder of affect, metabolism, perception, or sensory integration. Advocacy has often focused on ?curing? the disorder.
Style: 25% Lecture, 15% Film/Video, 40% Discussion, 10% Small Group Activities, 5% Student Presentation, 5% Guest Speakers.
Grading: 25% reports/papers, 15% special projects, 20% reflection paper, 15% in-class presentation, 15% class participation.

GWSS 3002 Gender, Race, and Class: Women's Lives in the United States
3 credit(s); Meets CLE req of Diversity and Soc Justice US;
Instructor: Isoke PhD, Zenzele
Description: The objective of this course is get students to systematically interrogate the categories that we use to make sense of class, race and gender. Throughout this course we will encounter readings that document the experiences, representations and empirical realities of class, sex and race in local, translocal, and transnational contexts. This course will actively confront issues of racism, sexism, heterosexism, American nationalism and colonialism. We will critically examine media as a key site through which representations of raced, sexed, and gendered bodies circulate and proliferate under neoliberalism, as well as the consider the implications of these representations on specific communities.

GWSS 3003 Gender and Global Politics
3 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Social Sciences;
Instructor: Bashore, Katie L
Description: This course will explore the effects of recent natural, political, and economic changes, as they reveal systems of power in globalization and create gendered, raced, classed, and geopoliticalized realities. Our contexts will most likely include the response to Hurricane Katrina, disaster relief efforts in Haiti, US/Mexico border wars, the Israel/Palestine conflict, The Troubles? in Northern Ireland and the Belfast peace process, wars in Iraq and Afghanistan, the current state of the US economy, and funding challenges for the neoliberal University, among others. No prerequisites are necessary for this course; rather, students should be prepared to think critically about course themes. Assignments for the class include four response papers, one final take-home essay examination, and formal written discussion questions for two class meetings. As this is a discussion-based class, in-class participation will be granted significant weight.
Style: 20% Lecture, 10% Film/Video, 50% Discussion, 15% Small Group Activities, 5% Guest Speakers.

GWSS 3102W Feminist Thought and Theory.
3 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Civic Life and Ethics; meets CLE req of Writing Intensive;
Instructor: Murthy, Pashmina V
Description: How do feminist writers articulate? Can we even think of it as a homogenous set of ideas? In this course, we will seek to provide a survey of the discipline, we will explore some of the key concepts that have gained focus within feminist studies. Recognizing that feminist theory represents an incredibly vast area of inquiry, we will not attempt to gain a comprehensive understanding of the field in its entirety. Rather, we will concentrate upon four specific conceptual modules: feminism, woman, praxis, and intersectionality. The goal of our course is to critically examine and interrogate the ideas emerging from these conceptual nodes.

GWSS 3203W Blood, Bodies and Science
3 credit(s); Meets CLE req of Social Sciences; meets CLE req of Technology and Society; meets CLE req of Writing Intensive;
Instructor: Garvey, Michelle Jenneman
Description: What are the medical practices that determine who is normal and who is abnormal? How do these practices get made? This course explores these questions through a sociological approach that centers on the experiences, beliefs, and actions of people who are categorized as abnormal. How do the practices of medicine and science sustain these categories, and what are the consequences of these practices? How do social norms influence diagnosis and treatment? How do people resist these practices and what are the costs and benefits of these resistances? We will analyze how biology and medicine are produced and reproduced in social contexts, and how scientific practices are generated and sustained by social forces.
GWSS 3302 Women and the Arts
3 credit(s);
Instructor: Kareem Albrecht, Charlotte
Description: Student may contact the instructor or department for information.

GWSS 3307 Feminist Film Studies
3 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Diversity and Soc Justice US;
Instructor: Moslow, Rebecca J
Description: Student may contact the instructor or department for information.

GWSS 3390 Topics: Visual, Cultural, and Literary Studies:
Witches, Seers, and Saints: Gender Religion in Am
3 credit(s), max credits 6;
Instructor: Kilde, Jane Halgren
Description: Course Description: Historians of American religion have long been aware of the fact that since the colonial period, women have outnumbered men in religious observances. Yet while often acknowledged, women’s strong participation in religious activity has not yet significantly altered the general landscape of historical studies of religion. What would happen to our understanding of religion in America if we refocused our historical attention on women? The goal of this course is to examine the history of American religion using gender as our category of critical analysis. Our investigations will cover Protestant, Catholic, Jewish, and Muslim women, with an eye toward women who have challenged ( witches), advanced (seers), and modeled (saints) orthodox ideals and practices. We’ll look at how both women and gender ideologies have influenced religious beliefs and practices from the colonial period to the present, and we’ll flip the categories to explore the many ways that religion influences and works to define gender? feminine, masculine, and GLBT. Tentative and Partial Reading List: Andrews, William, ed. Sisters of the Spirit. Bloomington: University of Indiana Press, 1986. Butler, Judith. The Judith Butler Reader. Willey-Blackwell, 2004. Karim, Jamillah. American Muslim Women. NYU, 2008. Lindley, Susan Hill, “You Have Stept Out of Your Place: A History of Women and Religion in America.” 1996. Yezierska, Anzia. Bread Givers. New York: Persea Books, [1925] 1999.
Style: 45% Lecture, 15% Film/Video, 40% Discussion.
Grading: 60% mid exam, 20% reports/papers, 20% quizzes.
Exam Format: All exams are take-home, essay format.

GWSS 3412 American Indian Women: Ethnographic and Ethnohistorical Perspectives
A-F only, 3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Historical Perspectives;
Instructor: Albers, Patricia
Description: This course intends to provide students with a broad understanding of American Indian women across different tribal nations and over time. Although the particular expressions of gender and expectations for their life accomplishments varies from one tribal nation to another, women contributed in important ways to provisioning, protecting, and promoting the spiritual, cultural and material well-being of their people. The course is divided into four sections, each representing a distinct focus in the study of American Indian women. The first section is concerned with representation and interpretation, or how American Indian women have been perceived in myth, literature, popular culture, and scholarly discourse. The second section studies the many ways women lived and housed their families in the past, and how they continually adapted these roles to meet the changing conditions of the present. The third section looks at the important role kinship plays in women’s lives, and it considers how work and kinship help to define a woman’s standing in her community. In doing so, the course documents the manners in which women supported and changed the destinies of their nations in diplomacy and war. And the final section covers women’s efforts to preserve the cultural integrity of their languages, artistic traditions, and spiritual beliefs.

GWSS 3415 Feminist Perspectives on Domestic Violence and Sexual Assault
A-F only, 3 credit(s); Meets CLE req of Diversity and Soc Justice US;
Instructor: Schuster, Mary Lay
Description: This course focuses on the history of and contemporary thinking about activism, social change, public
policies, and legal remedies directed toward sexual assault and domestic violence in the US, particularly from the point of view of feminist perspectives. The course deals, for example, with how notions of psychiatry and assumptions about traditional gender roles contribute to attitudes toward stranger sexual assault and intimate partner violence. Readings in the course offer insight into early links between slavery and rape, between the temperance movement and domestic violence, and between views of child abuse and sexual abuse, as well as the increasing roles of psychiatry and social work in addressing such violence. The course traces how these historical foundations and cultural attitudes help determine contemporary responses by legal officials, and the course covers such diverse topics as the impact of HIV/AIDS on rape survivors; sexual abuse of men in prison; incest; child abuse; and sex offender treatment. Students read a memoir (Alice Seabold's Lucky) about surviving sexual assault, and view a film (The Accused) as well as reading historical and analytical texts. Students will visit the domestic violence court in Hennepin County, and the course ends with a close look at a project by the president of William Mitchell Law School on sexual predator laws, such as civil commitment and community notification, in terms of their effectiveness, feminist perspectives, and impact on Constitutional rights. Other speakers include the executive director of the non-profit courtroom monitoring organization, WATCH, and the head of the Minneapolis Police Department Sex Crimes Unit.

**GWSS 4103 Transnational Feminist Theories**
3 credit(s); Meets CLE req of Global Perspectives;
Instructor: Murthy,Pashmina V
Description: What is the transnational, and why is it such an important area of study today? In this course, we will explore the term in relation to feminist theories and activism, focusing particularly on the following aspects: distinctions among the transnational, the international, and the global; the advantages and challenges of transnational activism; universal rights versus cultural particularity; the relationship between the postcolonial and the transnational. Over the course of the semester, we will learn to navigate the complex terrain of local and global processes and critiques of power and hegemony. To narrow our topic further, we will examine these aspects through the prism of ethics and political economy. Proposed assignments for the course include Scavenger Hunt, 50 minutes, and Shop Talk.

**GWSS 4790 Topics: Sexuality Studies: Queering Desire**
3 credit(s);
Instructor: Puotinen,Sara Lynne
Description: Student may contact the instructor or department for information.

**GWSS 5103 Feminist Pedagogies**
3 credit(s); prereq grad or instr consent;
Instructor: Puotinen,Sara Lynne
Description: Student may contact the instructor or department for information.

**GWSS 5190 Topics: Theory, Knowledge, and Power: Racio-cination: Fantasy and the Nation**
3 credit(s);
Instructor: Murthy,Pashmina V
Description: How do we understand national identity? How do figurations of the people, of the 'us' that forms the nation, collectively remember and forget? We will explore the overlapping, sometimes divergent, discourses of the nation through foundational violence and questions of race, gender, and memory. As such, the ideas emerging from the course will be historical, in so far as they focus on specific instances or case studies of violence that shape the nation and national identity. In addition, however, much of what we study will also be a theoretical examination of how we understand memory and re-imagine race and gender. Specific modules through which we will interrogate these concepts will include a focus on trauma, memory and memorializing, and state violence vs. war. Readings will include selected essays by Judith Butler, Paul Ricoeur, Veena Das, Svetlana Boym, Cathy Caruth, Marita Sturken, Avishai Margalit, and Jeffrey Olick, as well as some short works of fiction.

**GWSS 5790 Topics: Sexuality Studies: Readings in Critical Gender and Sexuality Studies**
3 credit(s), max credits 6;
Instructor: Kunzel,Regina G
Description: This course brings historical work on gender and sexuality (with an emphasis on U.S. contexts) into conversation with scholarship in interdisciplinary sexuality and queer studies. It is organized around themes and questions that animate recent scholarship on gender and sexuality that engages the past, broadly construed. Because gender and sexuality are structures through which race, migration, citizenship, empire, subjectivity, knowledge, identity, and embodiment are produced and circulated, we will also read work in which gender and sexuality are not central categories of analysis. We will think closely about methodologies used in the historical study of sexuality and gender, and about the challenges posed by those histories to historical methods. Bringing together foundational scholarship and pathbreaking recent work, our readings invite examination of the interactions between historical and theoretical approaches and the ways these interactions push scholarship in new directions.

**GWSS 6109 Feminist Theories and Methods II**
3 credit(s); prereq Feminist studies PhD or grad minor student or instr consent;
Instructor: Isoke PhD,Zenzele
Description: Student may contact the instructor or department for information.

**GWSS 6996 Feminist Studies Colloquium**
S-N only, 1 credit(s), max credits 4, 4 completions allowed;
prereq Grad major or minor in feminist studies;
Instructor: Zita,Jacquelyn N
Description: Student may contact the instructor or department for information.

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**General Dentistry**
15-209 MoosT

**GEND 5152 Advanced General Dentistry Seminar II**
S-N only, 5-10 credit(s), max credits 10, 1 completion allowed;
Instructor: Gambucci,James Robert
Description: Student may contact the instructor or department for information.

**GEND 5255 Advanced General Dentistry Clinic II**
S-N only, 5-15 credit(s), max credits 15, 1 completion allowed;
Instructor: Gambucci,James Robert
Description: Student may contact the instructor or department for information.

**GEND 5262 Advanced General Dentistry Clinical Administration II**
S-N only, 5-10 credit(s), max credits 10, 1 completion allowed;
Instructor: Gambucci,James Robert
Description: Student may contact the instructor or department for information.

**GEND 5265 Advanced General Dentistry Clinic V**
S-N only, 1-15 credit(s), max credits 15, 1 completion allowed;
Genetics, Cell Biology and Development 6-160 Jackson Hall

GCD 3022 Genetics
3 credit(s); prerequisite BIOL 1002 or BIOL 1009; Credit will not be granted if credit has been received for: BIOL 4003;
Instructor: Shaw,Jocelyn E
Description: Student may contact the instructor or department for information.

GCD 3022 Genetics
3 credit(s); prerequisite BIOL 1002 or BIOL 1009; Credit will not be granted if credit has been received for: BIOL 4003;
Instructor: Brooker,Robert James
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. This course is intended to provide students with a broad understanding of genetics. In the first part of the course, the emphasis will be on inheritance patterns. We will be interested in many types of inheritance patterns, including simple "Mendelian" inheritance, extrachromosomal inheritance, linkage, and quantitative traits that are determined by multiple genes. We will then examine the structure, replication, and expression of the genetic material known as deoxyribonucleic acid (DNA). This will involve an understanding of the molecular structure of DNA and its organization into units called genes. The last part of the course will examine genetic technologies. Style: This is a printed correspondence section.
Grading: 45% mid exam, 45% final exam, 10% written homework.
Exam Format: Supervised, in-person exams

GCD 3022W Genetics
S-N only, 1-7 credit(s), max credits 7, 7 completions allowed;
Instructor: Rougvie,Ann E
Description: This course is intended to provide an overview of genetics. The areas that will be covered include general principles of Mendelian, population, and molecular genetics. A portion of the course will also be devoted to developing problem-solving skills applicable to genetics and to the design of molecular and cellular experiments. Students are expected to have already taken an undergraduate course in General Biology.

GCD 4161 Developmental Biology
3 credit(s); prerequisite BIOL 4003; Concurrent registration is required (or allowed) in BIOL 4004 recommended;
Instructor: Conklin,Kathleen F
Description: This course is intended to provide an overview of genetics. The areas that will be covered include general principles of Mendelian, population, and molecular genetics. A portion of the course will also be devoted to developing problem-solving skills applicable to genetics and to the design of molecular and cellular experiments. Students are expected to have already taken an undergraduate course in General Biology.

GCD 4793W Directed Studies: Writing Intensive
S-N only, 1-7 credit(s), max credits 7, 7 completions allowed;
Instructor: LeRoy,Bonnie S
Description: Student may contact the instructor or department for information.

GCD 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed;
Instructor: Steer,Clifford John
Description: Student may contact the instructor or department for information.

GCD 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed;
Instructor: Schimmenti MD,Lisa A
Description: Student may contact the instructor or department for information.
GCD 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Lewis, Michelle
Description: Student may contact the instructor or department for information.

GCD 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Herzberg, Mark C
Description: Student may contact the instructor or department for information.

GCD 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Simmons, Michael J
Description: Student may contact the instructor or department for information.

GCD 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Skubitz, Amy P
Description: Student may contact the instructor or department for information.

GCD 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Valera, PhD, Daniel A.
Description: Student may contact the instructor or department for information.

GCD 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Chen, Wei
Description: Student may contact the instructor or department for information.

GCD 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Kirkpatrick, David T
Description: Student may contact the instructor or department for information.

GCD 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Ward, John M
Description: Student may contact the instructor or department for information.

GCD 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Clarke, Duncan John
Description: Student may contact the instructor or department for information.

GCD 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Linck, Richard W
Description: Student may contact the instructor or department for information.

GCD 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Campbell, Colin R
Description: Student may contact the instructor or department for information.

GCD 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Simon, Jeffrey A
Description: Student may contact the instructor or department for information.
GCD 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent;
Instructor: Berman, Judith G
Description: Student may contact the instructor or department for information.

GCD 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent;
Instructor: Zarkower, David A
Description: Student may contact the instructor or department for information.

GCD 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent;
Instructor: Simmons, Michael J
Description: Student may contact the instructor or department for information.

GCD 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent;
Instructor: Jennesson, Ronald R
Description: Student may contact the instructor or department for information.

GCD 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent;
Instructor: Brooker, Robert James
Description: Student may contact the instructor or department for information.

GCD 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent;
Instructor: Young, Nevin Dale
Description: Student may contact the instructor or department for information.

GCD 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent;
Instructor: Dalmasso, Agustin P.
Description: Student may contact the instructor or department for information.

GCD 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent;
Instructor: Jardine, Paul James
Description: Student may contact the instructor or department for information.

GCD 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent;
Instructor: Hering, Bernhard J.
Description: Student may contact the instructor or department for information.

GCD 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent;
Instructor: Sillflow, Carolyn D.
Description: Student may contact the instructor or department for information.

GCD 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent;
Instructor: Silflow, Carolyn D.
Description: Student may contact the instructor or department for information.

GCD 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent;
Instructor: Silflow, Carolyn D.
Description: Student may contact the instructor or department for information.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Instructor</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Description</th>
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<tbody>
<tr>
<td>GCD 4994 Directed Research</td>
<td>S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent</td>
<td>Bond, Daniel R</td>
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<td>Student may contact the instructor or department for information.</td>
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<td>GCD 4994 Directed Research</td>
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<td>Conner, PhD, Sean</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<td>GCD 4994 Directed Research</td>
<td>S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent</td>
<td>Fleischmann, William Robert</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<td>GCD 4994 Directed Research</td>
<td>S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent</td>
<td>Greenstein, David I.</td>
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<td>GCD 4994 Directed Research</td>
<td>S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent</td>
<td>Hays, Tom S</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<td>GCD 4994 Directed Research</td>
<td>S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent</td>
<td>Hirsch, Betsy Anne</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<tr>
<td>GCD 4994 Directed Research</td>
<td>S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent</td>
<td>Ahrens, Mary Jarvis</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<tr>
<td>GCD 8213 Selected Topics in Molecular Biology</td>
<td>S-N only, 2 credit(s), max credits 8, 4 completions allowed; prereq Grad MCDG major or instr consent</td>
<td>Hendrickson, Eric A</td>
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<td>Description: This course is officially called topics in Molecular Biology. This is deceptive, however. In fact, this is a writing course. This course is designed for 1st year graduate students. Extensive writing assignments will be assigned to help the student learn how to write research articles, grant applications and preliminary written proposals. Learning anything about topics in Molecular Biology is considered a distant second in terms of importance.</td>
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<tr>
<td>GCD 8913 Psychosocial Issues in Genetic Counseling</td>
<td>A-F only, 3 credit(s); prereq Grad MCDG major or instr consent</td>
<td>LeRoy, Bonnie S</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<td>GCD 8920 Special Topics</td>
<td>1-4 credit(s), max credits 8, 8 completions allowed; prereq Grad MCDG major or instr consent</td>
<td>Ahrens, Mary Jarvis</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<tr>
<td>GCD 8993 Directed Studies</td>
<td>S-N only, 1-5 credit(s), max credits 15, 15 completions allowed; prereq MCDG MS student with genetic counseling specialization or instr consent</td>
<td>Hirsch, Betsy Anne</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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</tbody>
</table>
**GCD 8994 Research**  
S-N only, 1-5 credit(s), max credits 20, 20 completions allowed; prereq MCDG MS student with genetic counseling specialization or instr consent  
**Instructor:** LeRoy, Bonnie S  
**Description:** Student may contact the instructor or department for information.

**GCD 8994 Research**  
S-N only, 1-5 credit(s), max credits 20, 20 completions allowed; prereq MCDG MS student with genetic counseling specialization or instr consent  
**Instructor:** LeRoy, Bonnie S  
**Description:** Student may contact the instructor or department for information.

**GIS 5530 GIS Internship**  
S-N only, 1-3 credit(s), max credits 6; prereq instr consent, strong GIS/mapping skills  
**Instructor:** McMaster, Susanna Akiko  
**Description:** Student may contact the instructor or department for information.

**GIS 5555 Basic Spatial Analysis**  
3 credit(s); prereq [Stat 3001 or equiv, MGIS student] or instr consent  
**Instructor:** Manson, Steven M.  
**Description:** Subject. Spatial analysis is used to understand a range of human and environmental systems, their patterns and dynamics, and their interactions with the broader world. Students. Students in this course have tended to come from across the social, natural, and information sciences with no clear majority in any one area. This distribution makes for a lively and challenging meeting of the minds. The course is oriented towards Masters, MGIS, or PhD students. Advanced undergraduates are invited to speak with the instructor to determine if they would find the course appropriate to their educational goals. Purpose. This course expands on aspects of GIS and statistics covered by previous courses. It is designed to give hands-on experience with advanced methods in geographic, spatial, and statistical research. Goals. Students who successfully complete this course will be able to use a range of spatial analysis tools to explore the patterns and dynamics of almost any problem that has a spatial element. Depending on student orientation, this course can be used to gain insight into the technical underpinnings of introductory spatial analysis, complement on-going research, or provide an applied focus for research or policy. Prior experience. Students should be proficient in GIS, basic mathematics, and standard statistical methodology including descriptive statistics and bivariate regression. As noted above in the prerequisites, this translates into having at least one statistics course and the ability to analyze data. The main goal of the course is that students will have a general understanding of how GIS software can be used to analyze and present data. Depending on student orientation, this course can be used to gain insight into the technical underpinnings of spatial analysis methods. On the other hand, the course is designed to provide students with the opportunity to apply their knowledge in a hands-on, practical setting. Depending on student orientation, this course can be used to gain insight into the technical underpinnings of spatial analysis methods. On the other hand, the course is designed to provide students with the opportunity to apply their knowledge in a hands-on, practical setting. Depending on student orientation, this course can be used to gain insight into the technical underpinnings of spatial analysis methods. On the other hand, the course is designed to provide students with the opportunity to apply their knowledge in a hands-on, practical setting.

**GIS 5571 ArcGIS I**  
3 credit(s); prereq [GEOG 5561 or equiv, status in MGIS program, familiarity with computer operating systems] or instr consent  
**Instructor:** Lindberg, Mark B  
**Description:** Student may contact the instructor or department for information.

**GIS 5573 Desktop Mapping**  
1.5 credit(s); prereq Geog 5561 or equiv, Geog 3511 or equiv, status in MGIS program or instr consent  
**Instructor:** Hansen, Catherine Lucia  
**Description:** An introduction to desktop mapping fundamentals using ESRI ArcGIS software. This course emphasizes the display and analysis of geographical data. It is a perfect course for new users as well as advanced users who want to brush up on current changes in the software.

**GIS 5574 GIS and the Internet**  
1.5 credit(s); prereq Geog 5561 or equiv, status in MGIS program or instr consent  
**Instructor:** Fischer, Brian Charles  
**Description:** GIS 5574 is an 8 week introduction to the many ways GIS data and applications can be used to provide content over the Internet. The course is geared towards students who are familiar with the World Wide Web and that have a working knowledge of GIS. Students will gain experience through browsing of the web, and will ultimately develop their own web site and interactive mapping and spatial query application. The course is an introductory level and assumes students have little to no experience in web page development and applications. Attention will be paid to the wide variety of technologies available to Web GIS developers. The course will make use of dozens of examples to illustrate how to create GIS applications for the Web. Students will learn how to create web pages and applications that are designed to distribute GIS content over the Internet. The course will cover how to create web pages and applications that are designed to distribute GIS content over the Internet.

**GIS 5581 Survey of Geographic Information Science:** Past, Present, and Future Trends and Activities  
3 credit(s); prereq MGIS student or instr consent  
**Instructor:** McMaster, Susanna Akiko  
**Description:** Student may contact the instructor or department for information.

**GIS 5690 MGIS Capstone Project**  
A-F only, 2-6 credit(s), 3 completions allowed; prereq MGIS, instr consent  
**Instructor:** Lindberg, Mark B  
**Description:** Student may contact the instructor or department for information.

**GIS 5690 MGIS Capstone Project**  
A-F only, 2-6 credit(s), 3 completions allowed; prereq MGIS, instr consent  
**Instructor:** McMaster, Susanna Akiko  
**Description:** Student may contact the instructor or department for information.

**GIS 5690 MGIS Capstone Project**  
A-F only, 2-6 credit(s), 3 completions allowed; prereq MGIS, instr consent  
**Instructor:** Harvey, Francis  
**Description:** Student may contact the instructor or department for information.

**GIS 5690 MGIS Capstone Project**  
A-F only, 2-6 credit(s), 3 completions allowed; prereq MGIS, instr consent  
**Instructor:** Manson, Steven M.  
**Description:** Student may contact the instructor or department for information.
414 Social Sciences Building

GEOG 1301W Our Globalizing World
4 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Social Sciences; meets CLE req of Writing Intensive;
Instructor: Saldana, Arun
Description: This course will introduce you to the geographical understanding of globalization. There is something more fundamental to geography than mapping: a spatial way of thinking about the world, which uses maps but also poetic descriptions of places, statistics, and advertising images. Geographers think in terms of flows, and the connections and differences between places. If sociologists talk about poverty, a geographer will ask: where is the poverty? Why is it there and not somewhere else? If anthropologists talk about the significance of a religious ceremony to a culture, a geographer would emphasize that the locale where the ceremony happens is crucial to understand its significance. And if urban studies shows how a particular city is rapidly changing through its links with other cities, a geographer will be of help in mapping the international circuits of money and business that intersect in that particular city. This course will allow you to understand the very different effects that globalization has on places outside the United States. It will develop some essential skills for living in a globalizing world.
Style: 60% Lecture, 15% Film/Video, 15% Discussion, 10% Guest Speakers.
Grading: 20% mid exam, 25% final exam, 15% reports/papers, 30% special projects, 10% class participation. The "special project" here designates fieldwork, a 10-page research paper, and a class presentation.
Exam Format: Midterm exam: 10 multiple choice questions, 5 short essay questions. Final exam: 3 essay questions.

GEOG 1403 Biogeography of the Global Garden
4 credit(s); Meets CLE req of Biological Sciences; meets CLE req of Environment;
Instructor: Kipfmueller, Kurt
Description: Have you ever wondered why northern Minnesota has an abundance of forests while the southwestern portion is composed of mostly grasslands? Why is it that deserts have such a unique array of organisms? Why is there so much biological diversity in tropical rainforests? A wide variety of plants and animals exist on Earth and many different factors control why different places have different communities of species. The geographies of plants and animals constantly change, contributing to the evolving biological diversity of places at both global and local scales. This course examines the spatial and temporal arrangement of plants and animals and the factors that shape these distributions. The course emphasizes the investigation of the linkages between abiotic and biotic systems including the influence of climate, soil, biotic interactions, and landscape configurations on biological diversity. In laboratory sections, students will make observations, and use mapping and computer-based technology to test hypotheses about the distributions and spatial behavior of plants and animals. The exercises will help students to understand (1) how the interactions of organisms with their environment vary geographically, and (2) how factors, such as climates and soils, control biotic distributions.
Style: 80% Lecture, 20% Discussion.
Grading: 60% quizzes, 30% laboratory evaluation, 10% other evaluation.

GEOG 1425 Introduction to Meteorology
4 credit(s); prerequisite High school algebra; Credit will not be granted if credit has been received for: ESPM 1425; Meets CLE req of Environment; meets CLE req of Physical Sciences;
Instructor: Klink, Katherine
Description: Weather is part of our everyday lives, sometimes memorably so, such as when we experience snowstorms, tornadoes, or heat waves. Our society also is increasingly concerned about environmental issues such as ozone depletion and climate change, which have a fundamental atmospheric component. What do we understand about how the atmosphere works? How might our own actions affect weather and climate? Our goals for this course are to: 1) learn about weather and climate, including the physical laws that govern the atmosphere, the current tools and technologies used to study the atmosphere, and to interpret weather and climate data; 2) experience and gain insight into the nature of science and scientific uncertainty; 3) become better able to evaluate critically scientific questions and claims, especially those concerning the human impacts on the atmosphere; 4) understand the limits to what we know about weather, climate, and climate change; and 5) reflect on our roles and responsibilities as agents of local and global environmental change, especially as related to the atmosphere. Goals 1-3 are directly related to the objectives of the Physical Science Core: to learn about key basic concepts and consequences regarding the natural laws, processes, and properties of matter and energy; to use basic research methods such as observation, hypothesis formation/testing, and/or computer simulations; understanding the limits and uncertainty associated with these methods; and to become more informed about the scientific basis of claims about climate and environmental change. Goals 3-5 are directly related to the objectives of the Environment Theme: to inform your understanding of the interrelationships between the non-human environment (e.g., the atmosphere) and human society; to introduce you to important underlying scientific principles within environmental issues, particularly as related to the atmosphere; to consider the possibilities and limitations of various technologies, practices, and policies aimed at adapting to, and/or mitigating, the potentially negative impacts of global climate change; and to reflect on our ethical commitments as global citizens on the issue of climate/environmental change. Questions we will try to answer include: What makes the wind blow? Why don't all clouds produce rain? What causes thunderstorms and tornadoes? How do satellites work? How does El Niño affect the weather in North America? How do you make a weather forecast? Are human activities really affecting the atmosphere? What is the greenhouse effect, and should we be concerned about it? What do we know about climate change? This course fulfills the CLE Physical Science with Lab Core, and the Environment Theme. Prerequisites: Students are expected to be familiar with pre-college algebra (at the level of the standard University entrance requirement).
Style: 60% Lecture, 10% Discussion, 30% Laboratory.
Grading: 25% final exam, 30% additional semester exams, 45% laboratory evaluation.
Exam Format: multiple choice, short answer.

GEOG 1502 Mapping Our World
3 credit(s);
Instructor: Manson, Steven M.
Description: People have been using maps, ranging from scratching their view of the world on clay tablets to developing sophisticated web-based maps. We will learn about mapping our world by understanding how maps work, making our own maps, mapping virtual worlds like Facebook and video games, and understanding how people use maps to tell stories and lies. Along the way, we will see how mapping is a useful lens through which to understand interactions between technology and society.
Style: 30% Lecture, 20% Discussion, 20% Small Group Activities, 30% Web Based. Two days a week we will meet in person for lectures and hand-on workshops while the third day will feature online lab work that students can do in an actual computer lab or from another computer at another time.
Grading: 30% mid exam, 15% final exam, 15% class participation, 40% laboratory evaluation. We focus on participation in hands-on class exercises, completing online labs and quizzes, and exams.
Exam Format: Multiple choice.

GEOG 1901 Freshman Seminar: Is Climate Really Changing?
A-F only, 3 credit(s); prerequisite Fr;
Description: What is the greenhouse effect, and should we be concerned about it? What do we know about climate change? This course will introduce you to the geographical understanding of global warming and climate change; and to reflect on our ethical commitments as global citizens on the issue of climate/environmental change. Goals 1-3 are directly related to the objectives of the Physical Science Core: to learn about key basic concepts and consequences regarding the natural laws, processes, and properties of matter and energy; to use basic research methods such as observation, hypothesis formation/testing, and/or computer simulations; understanding the limits and uncertainty associated with these methods; and to become more informed about the scientific basis of claims about climate and environmental change. Questions we will try to answer include: What makes the wind blow? Why don't all clouds produce rain? What causes thunderstorms and tornadoes? How do satellites work? How does El Niño affect the weather in North America? How do you make a weather forecast? Are human activities really affecting the atmosphere? What is the greenhouse effect, and should we be concerned about it? What do we know about climate change? This course fulfills the CLE Physical Science with Lab Core, and the Environment Theme. Prerequisites: Students are expected to be familiar with pre-college algebra (at the level of the standard University entrance requirement).
Style: 60% Lecture, 15% Film/Video, 15% Discussion, 10% Guest Speakers.
Grading: 20% mid exam, 25% final exam, 15% reports/papers, 30% special projects, 10% class participation. The "special project" here designates fieldwork, a 10-page research paper, and a class presentation.
Exam Format: Midterm exam: 10 multiple choice questions, 5 short essay questions. Final exam: 3 essay questions.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
GEOG 1973 Geography of the Twin Cities
3 credit(s); Credit will not be granted if credit has been received for: GEO 1009;
Instructor: Martin, Judith
Description: This course is a survey of the historical and contemporary geographical patterns of the Twin Cities metropolitan area. Questions raised include: Where are things located? (industry, transportation, housing, people of diverse backgrounds and resources, retail trade and services) Why are they located as they are? What are things like at the neighborhood level and how have these changed over time? How do economic and demographic forces produce changes on the landscape? How do publically sponsored planning and redevelopment programs try to correct the consequences of past actions? Class format is lecture and discussion. Questions are encouraged. Visual materials (power-point, overhead transparencies, slides, and occasional videos) will be used extensively. Course materials are the same for Geo 1973 and Geo 3973, but those registered in 3973 are expected to perform at a much higher level of analysis, and this will be reflected in the point scale for assignments. Two large field studies make up the bulk of the work and most of the readings are on E-reserve.
Style: 75% Lecture, 10% Film/Video, 10% Discussion, 5% Small Group Activities.
Grading: 15% mid exam, 25% final exam, 60% reports/papers.

GEOG 3101 Geography of the United States and Canada
4 credit(s); Credit will not be granted if credit has been received for: GEO 3102;
Instructor: Hart, John Fraser
Description: A visual tour of the continent, with ca. 80 slides in each lecture. Emphasis on the ways in which different groups of people have interacted with different physical environments to produce distinctive regions. Satisfies the Social Science Core and Cultural Diversity theme requirements. The instructor has a quirky sense of humor, and the lectures are interesting.
Style: 100% Lecture.
Grading: 60% mid exam, 30% final exam, 10% reports/papers.
Exam Format: Multiple choice based on maps

GEOG 3331 Geography of the World Economy
3 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Social Sciences;
Instructor: Clough, Nathan Lee
Description: The geography of the world economy is gaining increasing attention from economists, MBA professors, sociologists and anthropologists. Indeed, the World Bank’s 2009 World Development Report was subtitled ?reshaping economic geography. Yet the world economic crisis has posed a crisis for mainstream Economics, whose theories many have found to be inadequate for predicting or analyzing global economic dynamics. This course provides an alternative way of understanding the world economy, through the lens of geographical political economy. In this course, you will learn what it means to think geographically about socio-economic change, and examine the new insights a geographical perspective can bring to our understanding of the economic processes currently transforming the world?not only such global questions as whether China will replace the United States as the dominant geo-economic power, but such local questions as how people in your neighborhood seek to improve their livelihood chances. Notwithstanding all the attention given to global scale processes, we will see that what happens locally is as important as what happens globally. The first section of the course will introduce a geographical perspective on the ‘economy.’ This means much more than studying maps of economic activities. First, the geography of economic activities actually shapes economic change. So we will pay attention to core spatial concepts, of space, distance, accessibility, place and scale, and how they matter to economic and livelihood possibilities. Second, ‘economics?’ processes cannot be studied in isolation from the political, cultural, demographic and biophysical processes with which economic processes co-evolve through space and time. While economists have come to theorize the economy as either isolated from or fundamental to other societal and environmental processes, we will see that the picture is far more complicated?and that the spatiality of society contributes to this. We will also examine how the world economy is changing, and how this plays out in terms of social and spatial economic inequalities (assignment 1). The second section of the course will examine the shifting geographies of production. We will study the emergence of territorial differences in economic activities (spatial divisions of labor and uneven geographical development), differences in how territorial economies are governed, and the economic flows (trade, investment, migration) and transnational economic and institutional actors (transnational corporations, international financial institutions) shaping territorial economies and their co-evolution. Third, we will examine whether and how place, people, geographical situation and nature still matter in our globalizing world. Finally, we will turn to questions of culture, gender and alternative economic practices to those valued under capitalist market and accounting systems.

GEOG 3371W Citizens, Communities
4 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Writing Intensive;
Instructor: Simms, Nicole Colleen
Description: Student may contact the instructor or department for information.

GEOG 3377 Music in the City: Sounds and Bodies in Different Places
A-F only, 3 credit(s); Meets CLE req of Diversity and Soc Justice US;
Instructor: Saldanha, Arun
Description: Music fills space with meaning. Through music, people feel physically and emotionally connected to landscapes, neighborhoods, and particular buildings. But this also differentiates them from other people. Practices of music reveal the gender, class, and racial relations in American society. This course tries to understand how the connections between sound, place, and social difference emerge ‘on the ground?. Case studies of local, regional, and transnational music scenes in the United States, as well as several field trips and a research project, will enable you to obtain an in-depth sense of the urban geographies of music. Cases include minority music-making in the Twin Cities; Elvis pilgrimage and whiteness in Memphis; Detroit techno and blackness; hip hop and the politics of the ‘hood; illegal warehouse parties in San Francisco; exoticism in ‘world? music; the symphony and cultural capital; and the racial and sexual ambivalences of Prince.
Style: 40% Lecture, 15% Film/Video, 15% Discussion, 10% Small Group Activities, 10% Student Presentation, 10% Field Trips. Listening to and discussing music fragments are also part of the lectures.
Grading: 20% final exam, 35% reports/papers, 10% written homework, 20% In-class presentation, 15% class participation.
Exam Format: Essay questions aimed at comprehension and based on a reading.

GEOG 3381W Population in an Interacting World
4 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Social Sciences; meets CLE req of Writing Intensive;
Instructor: Leitner, Helga
Description: The aim of this course is to provide students with a basic understanding of and appreciation for human population phenomena and problems in an increasingly interdependent world. This will involve an investigation of patterns and trends in fertility, mortality and migration of human populations in different parts of the world and an examination of how these are both shaped by, and engender economic, political, cultural and environmental change. Throughout the course, particular attention is paid to: 1) contemporary population problems at the global, national and local scale, including the world population explosion, high levels of fertility in parts of the less developed world, record-low fertility and population aged in industrialized countries, the HIV-AIDS pandemic and major world health
problems, increasing levels of international migration, refugee crises, massive rural to urban migrations in the less developed world; 2) policies adopted to address these problems such as family planning policies to reduce fertility levels and migration policies; and 3) the gender dimension of contemporary population problems and policies, including women’s reproductive health and rights. In addition, this course will introduce students to various population theories, basic sources and measures for the study of population dynamics, and allow them to gain basic skills and experience in data analysis, interpretation, writing research reports and oral presentations.

GEOG 3411W Geography of Health and Health Care 4 credit(s); Credit will not be granted if credit has been received for: GEOG 5411; Meets CLE req of Writing Intensive;
Instructor: Weil, Connie
Description: This course surveys medical geography, a subdiscipline which encompasses a broad range of geographical work on health and health care. What distinguishes medical geography from the discipline of geography as a whole is its thematic focus on health and health care. It shares with the discipline a remarkable breadth of theoretical approaches, methodologies and sub-themes. In other words, medical geography does not differ from the rest of geography in theory or method. It is distinctive only in subject matter. This course uses medical geographic examples to explore three groups of theoretical approaches in geography: ecological approaches, which systematically analyze relationships between peoples and their environments; spatial approaches, which employ maps and spatial statistics to identify patterns of single and associated variables; and social approaches, including political economy and recent humanist approaches, which address issues related to both space and place. Students in the course are encouraged continually to consider the relationships among research questions, philosophical assumptions, and appropriate methods as well as to question the complementarity and inherent tensions among different theoretical approaches.
Style: 60% Lecture, 20% Discussion. multi-media

GEOG 3431 Plant and Animal Geography 3 credit(s); Credit will not be granted if credit has been received for: GEOG 5431;
Instructor: Blumenfeld, Kenneth A
Description: Student may contact the instructor or department for information.

GEOG 3531 Numerical Spatial Analysis 4 credit(s); Credit will not be granted if credit has been received for: GEOG 5531;
Instructor: Edsall, Rob
Description: Student may contact the instructor or department for information.

GEOG 3560W Geographical Perspectives on Planning 4 credit(s); Credit will not be granted if credit has been received for: GEOG 5605W; Meets CLE req of Writing Intensive;
Instructor: Bloch, Stefano
Description: Student may contact the instructor or department for information.

GEOG 3900 Topics in Geography 3 credit(s), max credits 9, 3 completions allowed;
Instructor: Harvey, Francis
Description: Overview (from the syllabus) The information age is with us in many guises. One of the key areas we experience its impact is in the increasing use of geospatial information technologies—everything from cell phone tracking and vehicle navigation to virtual globe mapping. These technologies are often implicit but key technologies in developing the information society. For a number of reasons, our location becomes a key factor in facilitating our interactions with others. As a starting point we can distinguish two sides to this. One of the most common geospatial information technologies, cell phones with GPS make it harder to get lost, but now the cell phone services are making also it harder to hide. How can we control access to this information? Indeed, the data used to help a cell phone customer figure out where they are can also be used by the government to find out where you have been. Justice department access to this data without probable cause has been an issue in many courts across the nation. The geospatial capabilities of cell phones and other information technologies puts us and society before many questions. What kind of control do we want over these technologies? What kind of control should we have? What kind of rights to privacy should apply to these technologies? What can we even do with these technologies? What are they? In this course, you will examine different types of these technologies and consider a range of applications as you learn about potentials, limits, and concerns about their use and ongoing developments. This course also takes up surveillance, cyberspace, and more common geospatial applications, especially those relying on cell phones. Objectives and Outcomes Digital Planet 1 is organized around a range of topics that lead you to understand four key questions about geospatial information technologies in the information society: what do they involve? how and who uses them? what are the limits of their use? what are concerns about their use?
Style: 20% Lecture, 60% Small Group Activities, 10% Student Presentation, 10% Demonstration.
Grading: 30% special projects, 50% written homework, 20% class participation.

GEOG 3973 Geography of the Twin Cities 3 credit(s); Credit will not be granted if credit has been received for: GEO 1009;
Instructor: Martin, Judith A
Description: This course is a survey of the historical and contemporary geographical patterns of the Twin Cities metropolitan area. Questions raised include: Where are things located? (industry, transportation, housing, people of diverse backgrounds and resources, retail trade and services) Why are they located as they are? What are things like at the neighborhood level and how have these changed over time? How do economic and demographic forces produce changes on the landscape? How do publicly sponsored planning and redevelopment programs try to correct the consequences of past actions? Class format is lecture and discussion. Questions are encouraged. Visual materials (power-point, overhead transparencies, slides, and occasional videos) will be used extensively. Course materials are the same for Geog 1973 and Geog 3973, but those registered in 3973 are expected to perform at a much higher level of analysis, and this will be reflected in the point scale for assignments. Two large field studies make up the bulk of the work and the readings are on E-reserve.
Style: 75% Lecture, 10% Film/Video, 10% Discussion, 5% Small Group Activities.
Grading: 15% mid exam, 25% final exam, 60% reports/papers.

GEOG 3985V Honors Senior Project Seminar 4 credit(s); prereq Honors, instr consent; Meets CLE req of Writing Intensive;
Instructor: Hart, John Fraser
Description: Student may contact the instructor or department for information.

GEOG 3985W Senior Project Seminar 4 credit(s); prereq [jr or sr], instr consent; Meets CLE req of Writing Intensive;
Instructor: Hart, John Fraser
Description: Student may contact the instructor or department for information.

GEOG 4002W Environmental Thought and Practice 3 credit(s); prereq Jr or sr; Meets CLE req of Writing Intensive;
**Instructor:** Braun, Bruce Philip  
**Description:** How do we understand ‘nature’ in an age of technoscience? What is the relation between capitalism, science and nature? What does it mean to do the ‘cultural studies’ of nature? This course surveys competing approaches to understanding nature-human relations in contemporary social and political thought. The course will draw from a diverse literature, including cultural ecology, Marxist political ecology, feminist theory, literary criticism and science and technology studies. It's objective will be to develop theoretical and analytical tools for investigating the social production of nature (both human and non-human). In the process, students will be challenged to think critically about knowledge formation, the construction of environmental imaginaries, the emergence of eco-movements, and the ideological frameworks and social conditions that organize and relate resource struggles, culture and identity. The course will be reading intensive and students should expect to take part regularly in class discussions.  
**Style:** 50% Lecture, 40% Discussion, film/video  
**Grading:** 20% mid exam, 20% final exam, 60% reports/papers  
**Exam Format:** Essay/multiple choice

**GEOG 4121W Latin America**  
4 credit(s); Credit will not be granted if credit has been received for: LAS 4121W; Meets CLE req of Writing Intensive  
**Instructor:** Weil, Connie  
**Description:** This course explores the interplay of natural environment and history in shaping contemporary Latin America and its international relations. We will grapple with the meaningfulness of thinking in terms of ?regions.? Issues addressed in the course include the political economy of natural resources, urbanization and the informal economy, differential well-being, and global-local connections. The course meets the Environment and International Perspectives designated-theme CLE requirements. It has been approved as a writing-intensive course.  
**Style:** 60% Lecture, 10% Film/Video, 20% Discussion, 10% Small Group Activities  
**Exam Format:** short answer

**GEOG 4700 Community Service Learning**  
1-3 credit(s), max credits 6, 6 completions allowed; prereq Concurrent enrollment in a Geog course that has community service learning as a component;  
**Instructor:** Weil, Connie  
**Description:** This community service learning course is designed to complement Geography 3411W: Geography of Health and Healing and/or Geography 4121W: Latin America. Therefore, all students taking this course must also be enrolled in one of those courses this semester or to have completed one previously. Geography 4700: Community Service Learning meets the CLE designated theme requirement of Citizenship and Public Ethics. It also satisfies the senior project requirement for geography majors and, with the approval of Lisa Brownell (the undergraduate adviser), for BSE majors. You may register under the same course number (GEOG 4700) for a maximum of six credits; this semester.?s offering is for three credits. If you are taking this course in conjunction with Geography 3411W, your community service will provide you with firsthand experiences that confirm or raise questions about your classroom learning and will encourage you to develop and articulate your own well-informed positions concerning health and health care in the U.S. today, the meaning of citizenship, the role in society of individuals and institutions (including the University of Minnesota and the hospital or other site where you do your community service), and the connections (and disconnects) between what you have learned in classes at the U and what is happening near campus. If you are taking this course in conjunction with Geography 4121W: Latin America, your community service will provide you with firsthand experiences that confirm or raise questions about your classroom learning and will encourage you to develop and articulate your own well-informed positions concerning Latinos in the U.S. today, the meaning of citizenship for you and for them, the role of individuals and institutions (including non-profit organizations) in society, and the connections (and disconnects) between what you learn in classes at the U and what is happening off campus.  
**Style:** 10% Lecture, 40% Discussion, 50% Service Learning

**GEOG 5361 Geography and Real Estate**  
4 credit(s);  
**Instructor:** Squires, Roderick H  
**Description:** Through lectures and field trips the course will examine the nature and history of land ownership in the United States with special reference to Minnesota. The focus will be on the mechanistic, legalistic, and historic characteristics of land ownership not the uses to which land has been put or the philosophical, sociological, or economic aspects of land ownership. More attention will be paid to the published and unpublished primary materials that characterizes the nature of land ownership in the United States than to the secondary literature. The course is designed for relatively senior undergraduates, both majors and non-majors, and graduates, anyone interested in understanding the role that land ownership plays in our modern society and has played in our nation's history.  
**Style:** 50% Lecture, field trips  
**Grading:** 100% reports/papers.  
**Exam Format:** no exam

**GEOG 5385 Globalization and Development: Political Economy**  
4 credit(s); prereq Sr or grad or instr consent;  
**Instructor:** Samatar, Abdi Ismail  
**Description:** Globalization and Development is a senior/graduate course in Geography and development studies. The principal objective of the course is to train students in development theory and practice in context global transformations. What do we mean by development at the beginning of the new millennium? Are the fortunes of Third World countries improving more significantly in this more globalized world than say, fifty years ago? How are the world resources distributed, and are Third World countries gaining enhanced capacity to “catch up?” At the end of the semester, I expect students to have a strong grasp of development theory and substance. There are two parts to the course. Part one deals with the intellectual history of development theory: from colonization to globalization and what Third World societies need to do to exploit opportunities in the system and minimize ill-effects. We look at a number of country case studies to better understand the specific challenges different societies face. Format of class: lecture/seminar. Requirements: one research paper, one book review and bi-weekly reaction abstracts to key class reading, and thoughtful class participation. Textbooks: a packet of reading and several short texts.  
**Style:** 50% Lecture, 50% Discussion  
**Grading:** 70% reports/papers, 30% class participation

**GEOG 5431 Plant and Animal Geography**  
3 credit(s); Credit will not be granted if credit has been received for: GEOG 3431;  
**Instructor:** Blumenfeld, Kenneth A  
**Description:** Student may contact the instructor or department for information.

**GEOG 5531 Numerical Spatial Analysis**  
4 credit(s); Credit will not be granted if credit has been received for: GEOG 3531;  
**Instructor:** Edsall, Rob  
**Description:** Student may contact the instructor or department for information.

**GEOG 5561 Principles of Geographic Information Science**  
4 credit(s); prereq grad;  
**Instructor:** Edsall, Rob  
**Description:** Student may contact the instructor or department for information.

**GEOG 5562 Geographic Information Science and Analytical Cartography**  
3 credit(s); prereq GIS 5571 or inst consent ;

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Fall 2010

Instructor: Lindberg, Mark B
Description: Student may contact the instructor or department for information.

GEOG 5605W Geographical Perspectives on Planning
4 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: GEOG 3605W; Meets CLE req of Writing Intensive;
Instructor: Bloch, Stefano
Description: Student may contact the instructor or department for information.

GEOG 8001 Problems in Geographic Thought
A-F only, 3 credit(s);
Instructor: Miller, Roger P
Description: Student may contact the instructor or department for information.

GEOG 8101 Proseminar: Nature and Society
3 credit(s); prereq instr consent;
Instructor: Braun, Bruce Philip
Description: Student may contact the instructor or department for information.

GEOG 8102 Proseminar: The State, the Economy, and Spatial Development
3 credit(s); prereq instr consent;
Instructor: Leitner, Helga
Description: Student may contact the instructor or department for information.

GEOG 8200 Seminar: Urban Geography
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;
Instructor: Kayzar, Brenda
Description: Rebuilding Place: Reconciling reinvestment and gentrification This seminar in Urban Geography will focus on issues of conflict in changing center city urban communities (e.g. gentrification, environmental justice, NIMBYism). These issues arise as communities envision improvement, and experience the impacts of shifting markets, political wills, and social change. The discussion will be framed by an examination of the myriad of ways urban scholars have theorized and studied the phenomenon of change over time.

GEOG 8211 Environmental Policy
3 credit(s); prereq instr consent;
Instructor: Squires, Roderick H
Description: Student may contact the instructor or department for information.

GEOG 8230 Theoretical Geography
3 credit(s); prereq instr consent;
Instructor: Saldanha, Arun
Description: Race, Space, and Biopolitics: Considering Foucault and Psychoanalysis Few students of the city, medicine, or the nation-state can escape at some point addressing the question of race. As a system of classifying and segregating bodies, race pops up even when we think we are studying something else. Obviously there is biological variation within the human species, but exactly why this variation has become so insidiously political is a difficult problematic shaking up any attempt at disciplining academic boundaries. This graduate seminar seeks to investigate the conceptual intricacies of the becoming-political of human life, of ?biopolitics, ? which Foucault theorizes as intrinsically tending towards state racism. This Fall emphasis will be given to the tensions between Foucault?s notion of biopolitics and psychoanalysis. For Foucault, psychoanalysis is a discipline largely complicit with bourgeois individualism. Yet ever since Fanon, psychoanalysis has also been fruitfully used in examining how colonization and capitalism intertwine racial and sexual difference. With affinities to both Foucault and psychoanalysis, Deleuze and Guattari?s Anti-Oedipus will help us conceive race as a material assemblage of desiring, laboring, violent, migrating bodies. The politicization of phenotypic differences is planetary, to a large extent determined by European whiteness, but also entirely contingent, and thus open to disruption by antiracist politics and research.
Style: 20% Lecture, 70% Discussion, 10% Student Presentation.

GEOG 8291 Seminar in GIS, Technology, and Society
3 credit(s); prereq instr consent;
Instructor: Harvey, Francis
Description: Ethical questions related to the use of GIS have been an area of importance for many years. The use of GIS for military and surveillance purposes along with concerns about the impacts GIS has on NGOs and the environment have been challenging issues and remain topics of deep concerning for people. Professionals working with GIS should develop a sound grasp of these issues and a thorough comprehension of the multiple concerns impacting the use and development of GIS. While most people agree that ethics matters, we often have great trouble putting ethical issues into action in practice. This seminar sets out to bridge this gap and provide a sound basis for future ethical consideration of accuracy and responsibility issues. This seminar, as part of a project supported by the National Science Foundation (NSF) and in collaboration with courses at Oregon State University and Pennslyvania State University engages students with a pragmatic approach to examining GIS ethics within the context of GIS professional work. It draws on the work of applied ethicists to approach questions of GIS ethics. This will be done through readings and a series of interviews with GIS professionals from the Twin Cities area. The first part of the course consists of a review of relevant applied ethical concepts. This forms the foundation for interviews with area GIS specialists. The interviews are followed by a review of relevant GIS ethical issues and codes of ethics before concluding with presentation and a concluding discussion about the role of ethics for GIS accuracy concerns and matters of responsibility.
Style: 90% Discussion. 10% Interviews with GIS Professionals
Grading: 25% reports/papers, 50% special projects, 25% class participation.

GEOG 8405 Seminar: Graduate Student Professional Development
S-N only, 1 credit(s), max credits 2; prereq Geography grad student;
Instructor: Klink, Katherine
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent;
Instructor: Adams, John S
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent;
Instructor: Martin, Judith A
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent;
Instructor: Lindberg, Mark B
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent;
Instructor: Leitner, Helga
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent;
Instructor: Mc Master, Robert B
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent;
Instructor: Bloch, Stefano
Description: Student may contact the instructor or department for information.
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Hart, John Fraser
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Gersmehl, Philip J
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Miller, Roger P
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Brown, Dwight A
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Samatar, Abdi Ismail
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Klink, Katherine
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Well, Connie
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Sheppard, Eric
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Squires, Roderick H
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Skaggs, Richard H
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Till, Karen E
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Braun, Bruce Philip
Description: Student may contact the instructor or department for information.

GEOG 8970 Directed Readings
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Giridwani, Vinay Krishin
Description: Student may contact the instructor or department for information.

for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Adams, John S
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Martin, Judith A
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Lindberg, Mark B
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Ziegler, Susy S
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: McMastler, Susanna Akiko
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Harvey, Francis
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Manson, Steven M.
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Shuman, Bryan Nolan
Description: Student may contact the instructor or department for information.

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GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Leitner, Helga
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Mc Master, Robert B
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Hart, John Fraser
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Gersmehl, Philip J
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Skaggs, Richard H
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Sheppard, Eric
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Squires, Roderick H
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Till, Karen E
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Ziegler, Susy S
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: McMaster, Susanna Akiko
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Kayzar, Brenda
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Saldanha, Arun
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Mc Muller, Kurt
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Saldaña, Arun
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: McMaster, Robert B
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Gidwani, Vinay Krishin
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Braun, Bruce Philip
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Kipfmueller, Kurt
Description: Student may contact the instructor or department for information.

GEOG 8990 Research Problems in Geography
1-5 credit(s), max credits 10; prereq dept consent
Instructor: Henderson, George Lawlor
Description: Student may contact the instructor or department for information.

GEOE 3301 Soil Mechanics I
A-F only, 3 credit(s); prereq AEM 3301, CSE student; Instructor: Detournay, Emmanuel Michel
Description: Student may contact the instructor or department for information.

GEOE 3301 Soil Mechanics I
A-F only, 3 credit(s); prereq AEM 3301, CSE student; Instructor: Detournay, Emmanuel Michel
Description: Student may contact the instructor or department for information.

GEOE 4102W Capstone Design
A-F only, 4 credit(s); prereq CE 4301, CE 4401, CE 4501, CE 4502; Meets CLE req of Writing Intensive; Instructor: Eickenberg, Paul Thomas
Description: Teams of 3 - 5 students solve civil engineering problems posed by practicing engineers (mentors). Student work progresses from problem description and formulation of objectives, through conceptual solutions, preliminary planning and analysis, design and environmental impact assessment, to feasibility plans and specifications, cost analysis, and recommendations. Each team makes three presentations. Draft reports and a final project report are reviewed.
Style: 5% Lecture, 10% Discussion, 50% Small Group Activities, 20% Student Presentation, 10% Demonstration, 5% Guest Speakers. Team work on an engineering project
Grading: 60% reports/papers, 5% attendance, 30% in-class presentation, 5% class participation.

GEOE 40101 Earth and Its Environments
4 credit(s); Credit will not be granted if credit has been received for: GEO 1101; Meets CLE req of Physical Sciences; Instructor: Hirschmann, Marc M
Description: Student may contact the instructor or department for information.

GEOE 4101 Earth and Its Environments
4 credit(s); Credit will not be granted if credit has been received for: GEO 1101; Meets CLE req of Physical Sciences; Instructor: Kirkby, Kent Charles
Description: Geology is the study of the Earth and its life. This is the world you live in and whether you’re aware of them or not, geological processes have played an integral role in shaping our society and will affect your entire life. GEO 1001 is an introduction to physical geology, including the Earth's materials, dynamic processes, and evolution. Earth's physical and biological systems are intimately linked - human civilization being the most recent example. Human cultures are based on Earth resources and processes. Geological factors have played a pivotal role in our past and will largely determine our future. In turn, the human impact on earth systems is nearly unprecedented. In a relatively short period of time, humans have become one of the most potent geological forces. As human population and consumption continue to increase, it is critical that our society gains a better basic understanding of geological processes, in order to better manage our own future. GEO 1001 satisfies the Council on Liberal Education's requirements for both the environmental theme and as a physical science with lab. This course is designed for undergraduate students who are not geology majors and there are no prerequisites.
Style: 60% Lecture, 40% Laboratory
Grading: 85% quizzes, 35% laboratory evaluation.
Exam Format: Lecture quizzes are a combination of multiple choice and short answer. Lab exams are mostly short answer questions.

GEOE 3301 Soil Mechanics II
A-F only, 3 credit(s); prereq [3301 or CE 3301], upper div CSE or instr consent; Credit will not be granted if credit has been received for: CE 4301; Instructor: Guzina, Bojan B
Description: Student may contact the instructor or department for information.

GEOE 8300 Seminar: Geomechanics
S-N only, 1-3 credit(s), max credits 4, 4 completions allowed; Credit will not be granted if credit has been received for: CE 8300; Instructor: Detournay, Emmanuel Michel
Description: Student may contact the instructor or department for information.

GEOE 8351 Advanced Groundwater Mechanics I
A-F only, 3 credit(s); prereq CE 4351, CSE grad student or instr consent; Instructor: Strack, Ph.D. Otto D
Description: Student may contact the instructor or department for information.

Geology and Geophysics
106 Pillsbury Hall

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Welcome to Oceanography! Although the oceans surround us, in many ways they remain more mysterious than the surface of the Moon. The world oceans include the deepest places and the largest mountains on earth, a dynamic and ever-changing pattern of waves, tides, and currents, and an array of unfamiliar creatures that live in a three-dimensional solution of life-sustaining chemical nutrients. In the short space of a semester, this course will try to provide at least a flavor of this complex and fascinating part of our world. We start with the nature of the ocean basins: their physical structure and evolution. We then examine the linkage between the evolution of the Earth and the formation of the oceans, and explore why and how seawater is what it is. Recently discovered spectacular geysers of hot seawater issuing from vents on the ocean floor, not only help to regulate seawater chemistry, but provide a unique environment for unusual microbial species, which serve as the base of the food chain for a diverse community of organisms. Next, we consider the dynamics of the great water masses, currents like the Gulf Stream, and the waves and tides that directly affect the lives of people on and near the sea. We then examine biological production and decomposition of organic matter and how they control nutrient distributions. The course ends with a look at how oceans and climate have evolved over time and where we may be headed in the future. Throughout the course, we emphasize ways in which the oceans directly affect humankind. Some examples include ocean-atmosphere interactions, which account for the El Niño phenomenon that has such a profound affect on global weather patterns and the human condition on Earth; tsunamis, which can influence people's lives in virtually all coastal communities; coastal storms and the effects they produce; and the oceans and global warming. We also work on questions of marine policy, fishing, and marine mineral resources from the perspectives of human impacts.

Style: 55% Lecture, 40% Laboratory, 5% Small Group Activities.
Grading: 25% final exam, 42% quizzes, 33% laboratory evaluation.

Description: Student may contact the instructor or department for information.

GEO 1006 Oceanography
4 credit(s); Credit will not be granted if credit has been received for: GEO 5006; Meets CLE req of Environment; meets CLE req of Physical Sciences;
Instructor: Seyfried, Jr, William E

GEO 1007 Geobiology: Origin and Evolution of Life on Earth
4 credit(s); Meets CLE req of Biological Sciences;
Instructor: Fox, David L

Description: GEO 1007 explores scientific evidence from biology, paleontology, and geology for the origin and subsequent evolution of life over the 4.5 billion year history of our planet. Earth appears to be unique in its habitability, and the origin of life on Earth was one of the most important events in our planet's history. The ongoing evolution of life affects the composition of our atmosphere and ocean, changes the nature of geological processes such as weathering and sedimentation, and alters cycling of the major elements critical for living organisms. This course will introduce fundamental concepts in modern biology and geology, and consider the many interactions between biological and geological processes. The course will also cover important events and transitions in the history of life, such as the origin of life, the origin of multicellular organisms, the evolution of life on land, mass extinction events that nearly erased all life, and the evolution of dinosaurs, whales, and humans.

Description: Student may contact the instructor or department for information.

GEO 1101 Introduction to Geology
3 credit(s); Credit will not be granted if credit has been received for: GEO 1001; Meets CLE req of Environment;
Instructor: Kirkby, Kent Charles

Description: GEO 1101 is the lecture-only version of GEO 1001. Geology is the study of the Earth and its life. This is the world you live in and whether you're aware of them or not, geological processes have played an integral role in shaping our society and will affect your entire life. GEO 1101 is an introduction to physical geology, including the Earth's materials, dynamic processes, and evolution. Earth's physical and biological systems are intimately linked - human civilization being the most recent example. Human cultures are based on Earth resources and processes. Geological factors have played a pivotal role in our past and will largely determine our future. In turn, the human impact on earth systems is nearly unprecedented. In a relatively short period of time, humans have become one of the most potent geological forces. As human population and consumption continue to increase, it is critical that our society gains a better basic understanding of geological processes, in order to better manage our own future. GEO 1101 satisfies the Council on Liberal Education's requirements for the environmental theme. This course is designed for undergraduate students who are not geology majors and there are no prerequisites.

Style: 100% Lecture.
Grading: 100% quizzes.
Exam Format: Lecture quizzes are a mixture of multiple choice and short answer questions.

GEO 1101 Introduction to Geology
3 credit(s); Credit will not be granted if credit has been received for: GEO 1001; Meets CLE req of Environment;

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
Welcome to Oceanography! Although the oceans surround us, in many ways they remain more mysterious than the surface of the Moon. The world oceans include the deepest places and the largest mountains on earth, a dynamic and ever-changing pattern of waves, tides, and currents, and an array of unfamiliar creatures that live in a three-dimensional unique environment for unusual microbial species, which not only help to regulate seawater chemistry, but provide a unique environment for unusual microbial species, which serve as the base of the food chain for a diverse community of organisms. Next, we consider the dynamics of the great water masses, currents like the Gulf Stream, and the waves and tides that directly affect the lives of people on and near the sea. We then examine biological production and decomposition of organic matter and how they control nutrient distributions. The course ends with a look at how oceans and climate have evolved over time and where we may be headed in the future. Throughout the course, we emphasize ways in which the oceans directly affect humankind. Some examples include ocean-atmosphere interactions, which account for the El Niño phenomenon that has such a profound affect on global weather patterns and the human condition on Earth; tsunamis, which can influence people's lives in virtually all coastal communities; coastal storms and the effects they produce; and the oceans and global warming. We also work on questions of marine policy, fishing, and marine mineral resources from the perspectives of human impacts.

Description:

Welcome to Oceanography! Although the oceans surround us, in many ways they remain more mysterious than the surface of the Moon. The world oceans include the deepest places and the largest mountains on earth, a dynamic and ever-changing pattern of waves, tides, and currents, and an array of unfamiliar creatures that live in a three-dimensional unique environment for unusual microbial species, which not only help to regulate seawater chemistry, but provide a unique environment for unusual microbial species, which serve as the base of the food chain for a diverse community of organisms. Next, we consider the dynamics of the great water masses, currents like the Gulf Stream, and the waves and tides that directly affect the lives of people on and near the sea. We then examine biological production and decomposition of organic matter and how they control nutrient distributions. The course ends with a look at how oceans and climate have evolved over time and where we may be headed in the future. Throughout the course, we emphasize ways in which the oceans directly affect humankind. Some examples include ocean-atmosphere interactions, which account for the El Niño phenomenon that has such a profound affect on global weather patterns and the human condition on Earth; tsunamis, which can influence people's lives in virtually all coastal communities; coastal storms and the effects they produce; and the oceans and global warming. We also work on questions of marine policy, fishing, and marine mineral resources from the perspectives of human impacts.

Style: 95% Lecture, 5% Small Group Activities.
Grading: 38% final exam, 62% quizzes.

Exam Format: Short answer, multiple choice

GEO 1002 Introduction to Earth History
3 credit(s); Credit will not be granted if credit has been received for: GEO 1002; Instructor: Kirby, Kent Charles
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Historical geology is the science that deals with the history of the Earth and its inhabitants. It draws on the principles of geology (the study of the Earth), biology (the study of life), and paleontology (the study of ancient life). Historical geologists are time travelers, and this course offers you the opportunity to take a voyage through time. You must use rocks, fossils, and a healthy dose of imagination in order to journey back to the age of dinosaurs, or of trilobites, or even before life itself. This course is divided into two distinct segments. The first, which comprises Lessons 1 through 9, is an overview of the basics of geology, biology, and paleontology that will become your foundation for understanding the later material. The second segment (Lessons 4 through 9) covers the story of Earth's history from its beginnings--nearly five billion years ago--to the present.
Style: Printed correspondence section
Grading: 25% mid exam, 35% final exam, 40% written homework.
Exam Format: Supervised, in-person exams

GEO 1101 Introduction to Geology
3 credit(s); Credit will not be granted if credit has been received for: GEO 1001; Instructor: Teyssier, Christian
Description: Student may contact the instructor or department for information.

GEO 1102 Introduction to Earth History
3 credit(s); Credit will not be granted if credit has been received for: GEO 1002; Instructor: Kirby, Kent Charles
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Historical geology is the science that deals with the history of the Earth and its inhabitants. It draws on the principles of geology (the study of the Earth), biology (the study of life), and paleontology (the study of ancient life). Historical geologists are time travelers, and this course offers you the opportunity to take a voyage through time. You must use rocks, fossils, and a healthy dose of imagination in order to journey back to the age of dinosaurs, or of trilobites, or even before life itself. This course is divided into two distinct segments. The first, which comprises Lessons 1 and 2, is a broad overview of the basics of geology, biology, and paleontology that will become your foundation for understanding the later material. The second segment (Lessons 4 through 9) covers the story of Earth's history from its beginnings--nearly five billion years ago--to the present.
Style: Printed correspondence section
Grading: 25% mid exam, 35% final exam, 40% written homework.
Exam Format: Supervised, in-person exams

GEO 1106 Oceanography
3 credit(s); Credit will not be granted if credit has been received for: GEO 1006; Instructor: Seyfried Jr., William E
Description: Welcome to Oceanography! Although the oceans surround us, in many ways they remain more mysterious than the surface of the Moon. The world oceans include the deepest places and the largest mountains on earth, a dynamic and ever-changing pattern of waves, tides, and currents, and an array of unfamiliar creatures that live in a three-dimensional unique environment for unusual microbial species, which not only help to regulate seawater chemistry, but provide a unique environment for unusual microbial species, which serve as the base of the food chain for a diverse community of organisms. Next, we consider the dynamics of the great water masses, currents like the Gulf Stream, and the waves and tides that directly affect the lives of people on and near the sea. We then examine biological production and decomposition of organic matter and how they control nutrient distributions. The course ends with a look at how oceans and climate have evolved over time and where we may be headed in the future. Throughout the course, we emphasize ways in which the oceans directly affect humankind. Some examples include ocean-atmosphere interactions, which account for the El Niño phenomenon that has such a profound affect on global weather patterns and the human condition on Earth; tsunamis, which can influence people's lives in virtually all coastal communities; coastal storms and the effects they produce; and the oceans and global warming. We also consider questions of marine policy, fishing, and marine mineral resources from the perspectives of human impacts.
Style: 70% Lecture, 10% Film/Video, 10% Discussion, 10% Guest Speakers.
Grading: 34% final exam, 66% quizzes.

GEO 1106 Oceanography
3 credit(s); Credit will not be granted if credit has been received for: GEO 1006; Instructor: Seyfried Jr., William E
Description: Welcome to Oceanography! Although the oceans surround us, in many ways they remain more mysterious than the surface of the Moon. The world oceans include the deepest places and the largest mountains on earth, a dynamic and ever-changing pattern of waves, tides, and currents, and an array of unfamiliar creatures that live in a three-dimensional unique environment for unusual microbial species, which not only help to regulate seawater chemistry, but provide a unique environment for unusual microbial species, which serve as the base of the food chain for a diverse community of organisms. Next, we consider the dynamics of the great water masses, currents like the Gulf Stream, and the waves and tides that directly affect the lives of people on and near the sea. We then examine biological production and decomposition of organic matter and how they control nutrient distributions. The course ends with a look at how oceans and climate have evolved over time and where we may be headed in the future. Throughout the course, we emphasize ways in which the oceans directly affect humankind. Some examples include ocean-atmosphere interactions, which account for the El Niño phenomenon that has such a profound affect on global weather patterns and the human condition on Earth; tsunamis, which can influence people's lives in virtually all coastal communities; coastal storms and the effects they produce; and the oceans and global warming. We also consider questions of marine policy, fishing, and marine mineral resources from the perspectives of human impacts.
Style: 70% Lecture, 10% Film/Video, 10% Discussion, 10% Guest Speakers.
Grading: 34% final exam, 66% quizzes.

GEO 1106 Oceanography
3 credit(s); Credit will not be granted if credit has been received for: GEO 1006; Instructor: Seyfried Jr., William E
Description: Welcome to Oceanography! Although the oceans surround us, in many ways they remain more mysterious than the surface of the Moon. The world oceans include the deepest places and the largest mountains on earth, a dynamic and ever-changing pattern of waves, tides, and currents, and an array of unfamiliar creatures that live in a three-dimensional unique environment for unusual microbial species, which not only help to regulate seawater chemistry, but provide a unique environment for unusual microbial species, which serve as the base of the food chain for a diverse community of organisms. Next, we consider the dynamics of the great water masses, currents like the Gulf Stream, and the waves and tides that directly affect the lives of people on and near the sea. We then examine biological production and decomposition of organic matter and how they control nutrient distributions. The course ends with a look at how oceans and climate have evolved over time and where we may be headed in the future. Throughout the course, we emphasize ways in which the oceans directly affect humankind. Some examples include ocean-atmosphere interactions, which account for the El Niño phenomenon that has such a profound affect on global weather patterns and the human condition on Earth; tsunamis, which can influence people's lives in virtually all coastal communities; coastal storms and the effects they produce; and the oceans and global warming. We also consider questions of marine policy, fishing, and marine mineral resources from the perspectives of human impacts.
Style: 70% Lecture, 10% Film/Video, 10% Discussion, 10% Guest Speakers.
Grading: 34% final exam, 66% quizzes.
Instructor: Teyssier, Christian
Description: Student may contact the instructor or department for information.

GEO 1901 Freshman Seminar: Environment: Geology of Minnesota
A-F only, 3 credit(s), max credits 6; prereq freshman; Meets CLE req of Environment;
Instructor: Thorleifson, Harvey
Description: Understanding interactions between the Minnesota environment, natural resources, ecosystems, and human activity requires a grasp of the structure and history of our landscape, from the Mississippi River basin to the Red River Valley and the Lake Superior basin. Underlying and shaping this landscape are ancient rocks in the north and in the deep subsurface, younger limestone and sandstone in the south, and the deposits of the Ice Age that our soils have formed in. These deposits host our principal drinking water sources, so we must understand them in order to protect and wisely use our water. Reading assignments will be papers, brochures, and web content. A full-day field trip on Saturday, September 18 will examine the water resources of our rivers and lakes, and a second full-day trip on Saturday, October 2 will examine how geology controls our well water supply.
Style: 40% Lecture, 30% Small Group Activities, 30% Field Trips.
Grading: 20% reports/papers, 20% special projects, 60% written homework.

GEO 1905 Freshman Seminar: Tsunamis: An Underrated Hazard
A-F only, 2 credit(s), max credits 6; prereq freshman;
Instructor: Yuen, David A
Description: Student may contact the instructor or department for information.

GEO 1905 Freshman Seminar: History in a Grain of Sand
A-F only, 2 credit(s), max credits 6; prereq freshman;
Instructor: Hudleston, Peter John
Description: Student may contact the instructor or department for information.

GEO 2201 Solid Earth Dynamics
A-F only, 4 credit(s); prereq Concurrent registration is required (or allowed) in PHYS 1301 or instr consent;
Instructor: Moskowitz, Bruce Matthew
Description: Student may contact the instructor or department for information.

GEO 2301 Mineralogy
3 credit(s); prereq concurrent enrollment in Chem 1021 and Math 1271 or instr consent;
Instructor: Whitney, Donna L
Description: The main themes of this course are the chemistry, structure, and physical properties of minerals, and how to use information about minerals to interpret Earth processes. Topics include crystallography, crystal chemistry, crystal optics, and systematic consideration of minerals and mineral groups. The course focuses on the most important rock-forming minerals that make up the Earth's crust and mantle. This course is intended for undergraduates (geology, geophysics, and geological engineering majors, and others interested in Earth materials).
Style: 50% Lecture, 50% Laboratory.
Grading: 20% final exam, 30% quizzes, 30% laboratory evaluation, 20% problem solving.
Exam Format: short answer

GEO 3004 Water and Society
3 credit(s);
Instructor: Alexander, Jr. E Calvin
Description: Designed for non-science majors, this course is a study of the processes that influence the formation, circulation, and modification of water at, or near, the surface of the earth. The role of humans as agents influencing the composition and use of water resources through agricultural, industrial, and other land-use practices will be emphasized. The course begins with a detailed analysis of the physical aspects of the hydrologic cycle and the chemical and physical nature of water on earth. Building from this science of natural water systems, students will investigate the sensitivity and vulnerability of these systems to change as well as the potential impact of human activity on water resources. Students will be asked to consider the role of politics and ethics in developing environmental policy on issues such as toxic and nuclear waste disposal, agricultural non-point source pollution, flood control, river and lake pollution on both short- and long-term time scales. The course will draw heavily on examples from Minnesota so that students can better identify with the ethical dilemmas posed by competing viewpoints on environmental protection versus economic growth.
Style: 80% Lecture, 20% Discussion. optional field trips
Grading: 25% mid exam, 35% final exam, 40% reports/papers.
Exam Format: Essay questions, short answers, multiple choice questions

GEO 3093 Problems in Geology and Geophysics: Junior
1-4 credit(s), max credits 6, 6 completions allowed; prereq instr consent;
Instructor: STAFF
Description: Students interested in working on a particular problem or issue in either geology or geophysics can contact the department office for referral to appropriate faculty members. Students will work on a one-to-one basis with a faculty member. Projects may include literature review, laboratory or field work, or computer modeling. Depending on the scope of the project students can earn from 1-4 credits for each project. This course may be taken more than once when different problems are pursued.
Style: varies with instructions
Grading: varies with instructions
Exam Format: varies with instructions

GEO 3202 Geodynamics II: The Fluid Earth
3 credit(s); prereq concurrent enrollment 2201;
Instructor: Paola, Chris
Description: Student may contact the instructor or department for information.

GEO 3425 Atmospheric Composition and Chemistry
A-F only, 3 credit(s); prereq [CHEM 1021, CHEM 1022, [MATH 1271 or equiv], PHYS 1101] or instr consent; ESPM 1425/GEOG 1425 recommended; Credit will not be granted if credit has been received for: ESPM 3425;
Instructor: Millet, Dylan Baird
Description: What is the composition of the atmosphere, and why is it changing? In this class we'll examine the processes governing the makeup of Earth's atmosphere and their implications for air pollution, climate, and human welfare. Evolution of the atmosphere; atmospheric structure and transport; biogeochemical cycles of carbon, nitrogen, oxygen, mercury; the greenhouse effect; aerosols; stratospheric ozone loss; oxidizing power of the atmosphere; smog. The movie below shows the 2009 ozone hole over Antarctica [credit: NASA]. Prerequisites: CHEM 1021/1022, PHYS 1011, MATH 1271, or equivalents, or instructor consent.

GEO 4010 Undergraduate Seminar: Current Topics in Geology and Geophysics
1-4 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: STAFF
Description: Seminar courses are offered to undergraduate students on varying topics taught by departmental faculty. Students interested in learning which seminars are offered during a semester should contact either the department office or individual faculty members. Credit for seminar courses vary from 1-4 credits and this course may be taken more than once.
Style: varies with instructions
Grading: varies with instructions
Exam Format: varies with instructions

GEO 4093 Problems in Geology and Geophysics: Senior
1-4 credit(s), max credits 6, 6 completions allowed; prereq
GEO 4094 Senior Thesis
2 credit(s), max credits 4; prereq Sr, Geo or GeoPhys major, instr consent;
Instructor: STAFF
Description: This course is intended for senior level majors to engage in independent research under faculty supervision. Students select problems according to individual interests and in consultation with faculty committee. Year long project results in a written thesis and oral defense.
Style: varies with instructions
Grading: varies with instructions
Exam Format: varies with instructions

GEO 4203 Principles of Geophysical Exploration
3 credit(s); prereq Phys 1302;
Instructor: Moskowitz,Bruce Matthew
Description: This course deals with the applications of geophysical techniques for subsurface exploration and characterization or mineral and energy resources, geotechnical, site investigation, and environmental problems, and for global studies of the earth's interior. However, the main emphasis is on the shallow subsurface environment. Topics include potential field techniques (gravity and magnetics), seismic exploration (reflection and refraction), and electrical and electromagnetic methods. For each topic, the development will proceed from basic principles through methodology to applications. Grading is based on a combination of problem sets, midterm exams, and a final exam. The course is designed for, but not limited to, undergraduate majors and graduate students in geology, geophysics, geological engineering and related fields.
Style: 100% Lecture.
Grading: 40% mid exam, 30% final exam, 30% problem solving.
Exam Format: mixed short answer, multiple choice, and simple problems

GEO 4203 Principles of Geophysical Exploration
3 credit(s); prereq Phys 1302;
Instructor: Chandler,Val W
Description: This course deals with the applications of geophysical technique for subsurface exploration and characterization or mineral and energy resources, geotechnical, site investigation, and environmental problems, and for global studies of the earth's interior. However, the main emphasis is on the shallow subsurface environment. Topics include potential field techniques (gravity and magnetics), seismic exploration (reflection and refraction), and electrical and electromagnetic methods. For each topic, the development will proceed from basic principles through methodology to applications. Grading is based on a combination of problem sets, midterm exams, and a final exam. The course is designed for, but not limited to, undergraduate majors and graduate students in geology, geophysics, geological engineering and related fields.
Style: 100% Lecture.
Grading: 40% mid exam, 30% final exam, 30% problem solving.
Exam Format: mixed short answer, multiple choice, and simple problems

GEO 4631W Earth Systems: Geosphere/Biosphere Interactions
3 credit(s); prereq 3401; Meets CLE req of Writing Intensive;
Instructor: Ito,Emi
Description: Student may contact the instructor or department office for referral to appropriate faculty members.
Style: 33% Lecture, 33% Discussion. student presentations
Exam Format: No exams

GEO 4501 Structural Geology
3 credit(s); prereq 2201, 2302;
Instructor: Hudleston,Peter John
Description: Structural geology is the study of the structures formed in rocks as a result of deformation, on all scales from the microscopic to the crustal or lithospheric (plates), and on time scales that vary from rapid? associated with brittle behavior? to extremely slow? associated with ductile flow. The most important forces applied to crustal rocks are gravitational and tectonic, and they result in rocks everywhere being in a state of stress. Analysis of structures starts with the concepts of stress and strain, with an emphasis on the large permanent strains commonly developed in nature. The course deals with the geological implications of strain theory and the geometry, kinematics and mechanical processes involved in the development of tectonic fabric and structures, moving from the brittle to the ductile regimes. Deformation mechanisms on the strain and microscopic scales are considered. Structures analyzed include joints, faults and folds
Grading: 37% mid exam, 12% final exam, 10% reports/papers, 40% laboratory evaluation. 3 midterms plus lecture final for lecture part of course. 30% for lab work plus 10% for a lab final. Field trip reports 10%.
Exam Format: Short essay answers, plus some problems involving numerical calculations.
GEO 5302 Isotope Geology
A-F only, 3 credit(s); prereq 2303 or instr consent;
Instructor: Edwards, Lawrence
Description: This graduate course is intended for those students who either expect to include isotope studies in their thesis work, or for those who need some proficiency in understanding and evaluating isotope data and their interpretation. Half of the course deals primarily with radiogenic isotope chronometers and tracers including nuclear stability and radioactivity, isotope dilution methods, counting statistics, K-Ar, Ar-Ar, Rb-Sr, Sm-Nd, U-Pb, C-14 and U-series disequilibrium systems. The other half of the course deals with the principles of stable isotope fractionation, and various applications to petrologic, hydrologic, paleoclimatic, and biological studies. Homework sets are designed in increase the understanding of the concepts covered in class.
Style: 100% Lecture.
Grading: 35% mid exam, 45% final exam, 20% other evaluation.
Exam Format: short answers, problem solving and short essays

GEO 5353 Electron Microprobe Theory and Practice
3 credit(s); prereq [One yr chem, one yr physics] or instr consent; Credit will not be granted if credit has been received for: MATS 5353;
Instructor: Frahm, Ellery Edward
Description: Please visit the course webpage for additional information. This course aims to familiarize graduate students and advanced undergraduates with the physics behind and instrumentation of electron microprobe analysis and to train students to use the JEOL 8900 Electron Probe Microanalyzer. There are two components to this course: lectures and labs. All students attend all lectures and labs. This course is not mathematically based. Instead, the lectures and readings are intended to develop a conceptual and qualitative or semi-quantitative understanding of the principles and instrumentation of electron microprobe analysis. Concepts are emphasized so that, if and when one is interested in the mathematical details, one can have a firm foundation on which to build. There will be no weekly problem sets; however, all students are assigned 25 to 50 pages of reading each week, and there will be a quiz at the end of each lecture on the assigned readings. The prerequisites are one year of physics and/or chemistry or instructor consent. Coursework in geology is helpful but not required.
Style: 50% Lecture, 50% Laboratory.
Grading: 20% mid exam, 25% final exam, 10% special projects, 20% quizzes, 5% class participation, 20% laboratory evaluation.
Grading schemes differ for graduate and undergraduate students.
Exam Format: Multiple choice, short answer, essay, diagrams; few mathematical problems.

GEO 5713 Tracers and Karst Hydrogeology
3 credit(s); prereq 5701, instr consent;
Instructor: Alexander Jr, E Calvin
Description: Geo 5713. Tracers and Karst Hydrogeology (sec 1) prereq instr consent, 3 cr; Instructor: Alexander Jr., E Calvin,!! Morse Alumni Teaching Award Winner. Karst Hydrogeology and Tracer Applications is an introduction to karst hydrogeology and to the application of tracers in hydrogeology to determine the source, age, and mixing parameters of the water in various natural reservoirs. The course will cover the physical and chemical principles and processes operating in karst hydrogeology and the use of natural and synthetic chemical and isotopic labels or tracers to follow the movement and mixing of water through the hydrologic cycle. The natural systems and human impacts on those systems will be discussed. The course is aimed at advanced undergraduate students, beginning graduate students, and professionals with a background and interest in hydrogeology. The course is designed to be practical, "hands on" introduction to groundwater tracers and active participation in weekend groundwater trace is a required part of the course. The course will include the preparation and written and oral presentation of a term paper by each student. Text required: "Ground Water Tracers" by S.N. Davis, D.J. Campbell, H.W. Bentley and T.J. Flynn, National Water Association, 1985.
Style: 90% Lecture, 10% Discussion. A weekend dyetranse field trip is required as part of the course.
Grading: 25% mid exam, 25% final exam, 30% reports/papers.
Exam Format: one in class midterm exam, 1 take home final exam. Objective questions and essays.

GEO 8601 Introduction to Stream Restoration
A-F only, 3 credit(s); prereq Grad student in CE or GEO or EEB or WR or FW or FR or BAE or FR or ORN or LA or SRSE or instr consent; Credit will not be granted if credit has been received for: EEB 8601;
Instructor: Paola, Chris
Description: Student may contact the instructor or department for information.

GEO 8980 Seminar: Current Topics in Geology and Geophysics
S-N only, 1-4 credit(s), max credits 30, 30 completions allowed; prereq instr consent ;
Instructor: Whitney, Donna L
Description: Student may contact the instructor or department for information.

GEO 8980 Seminar: Current Topics in Geology and Geophysics
S-N only, 1-4 credit(s), max credits 30, 30 completions allowed; prereq instr consent ;
Instructor: Edwards, Lawrence
Description: Student may contact the instructor or department for information.

GER 7100 Oral Health Services for Older Adults Seminar
2 credit(s);
Instructor: Shuman, Stephen K
Description: Student may contact the instructor or department for information.

GER 7200 Advanced Clinical Geriatric Dentistry
A-F only, 1-10 credit(s), max credits 10, 1 completion allowed;
Instructor: Shuman, Stephen K
Description: Student may contact the instructor or department for information.

GER 7210 Geriatric Hospital Dentistry
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Olstehage, John Charles
Description: Student may contact the instructor or department for information.

GER 1001 Beginning German
5 credit(s);
Instructor: STAFF
Description: German 1001 is intended for beginners and
introduces students to the four language skills areas: speaking, writing, listening, and reading. Homework assignments become the basis for student-to-student interaction, small group work and role-play in class. The text for the course, Wende, covers speaking and writing in daily contemporary issues and stresses reading and listening strategies useful in language learning. Along with this textbook we use a German cultural reader called Oktoberfest, a mystery which takes place in Munich, and grammar reference materials. Students will also complete a variety of writing activities, including essays. First-year language courses involve extensive student interaction, partner activities, and group work. Expect an average of 1.5 hours of outside preparation for each class session hour.

**Style:** mostly discussion and student involvement and interaction.

**Grading:** 10% final exam, 12% reports/papers, 4% special projects, 33% quizzes, 28% class participation, 13% other evaluation. reading/group work assignments and computer and audio lab.

**Exam Format:** written.

**GER 1001 Beginning German**

**5 credit(s);**

**Instructor:** Steinhagen, Virginia I

**Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for policies, including fee and financial aid restrictions. This course is designed to help you learn German through a proficiency-oriented process that presents practical information in real-life topics and scenarios. It will prepare you to communicate in the kinds of situations that are likely to arise when traveling in a German-speaking country. In each lesson you will complete learning activities and assessments in this course site and other online activities in the Wende Web site.

**Style:** Online

**Grading:** 12% final exam, 44% quizzes. Also: 56 practice exercises: 17%; 11 free writing assignments: 27%

**Exam Format:** Online

**GER 1002 Beginning German**

**5 credit(s); prerequisite 1001;**

**Instructor:** STAFF

**Description:** German 1002 is intended for students who have completed German 1001 or the equivalent. The course emphasizes four language skills: speaking, writing, listening, and reading. Homework assignments become the basis for student-to-student interaction, small group work and role-play in class. The text for the course, Wende, covers speaking and writing in daily contemporary issues and stresses reading and listening strategies useful in language learning. Along with this textbook we use a German cultural reader called Grenzverkehr and grammar reference materials. By the end of the course students should be able to compare the German and American educational systems, and describe free-time activities and career choices. They will also have become familiar with various contemporary social issues in the German-speaking countries. Several class sessions will help familiarize students with computer and Internet resources. This course includes process writing assignments. First-year language courses involve extensive student interaction, partner activities, and group work. Expect an average of 1.5 hours of outside preparation time for each class session hour.

**Style:** Mostly discussion and student involvement and interaction.

**Grading:** 10% final exam, 12% reports/papers, 8% special projects, 27% quizzes, 22% class participation, 21% other evaluation. reading/group work assignments and computer/audio lab

**Exam Format:** written

**GER 1003 Intermediate German**

**5 credit(s); prerequisite 1002 or Entrance Proficiency Test;**

**Instructor:** STAFF

**Description:** Students in this course will be working with the course-packet Sprunge and the accompanying listening exercises on Sprunge-Online, short literary texts, a feature film, and online cultural exercises. Topics covered in this course will include free-time activities and travel, living situations, the German educational system, career decisions, and media and technology. The program has a communicative and functional orientation. German 1003 is designed to review basic German language structures and to help students extend their listening and speaking skills. Regular recycling of grammar and vocabulary encourages students to become more fluent in their use of language. Students participate regularly in conversational activities, small group work, role-plays, and internet research of cultural topics. Process-writing essays, presentations on cultural topics, and short interviews round out the course.

**Style:** varies with instructor

**Grading:** 10% final exam, 15% reports/papers, 6% special projects, 30% quizzes, 8% in-class presentation, 25% class participation, 6% other evaluation. Role-plays

**Exam Format:** written, oral interviews

**GER 1004 Intermediate German**

**5 credit(s); prerequisite 1003 or completion of Entrance Proficiency Test at 1004 level;**

**Instructor:** STAFF

**Description:** 1004 builds on the skills taught in 1003. Students use the course-packet Sprunge 1004 and listening exercises on Sprunge-Online, read short texts and a play, watch a feature film, and do online cultural exercises. Topics include Berlin, film, and issues of multiculturalism. German 1004 reviews German language structures and helps students expand their listening, speaking, reading and writing skills. Regular recycling of grammar and vocabulary encourages students to become more fluent in their use of language. Students participate regularly in conversational activities, small group work, role-plays, and internet research. Process-writing essays, presentations, and interviews round out the course. Course materials: Sprunge 1004, Durrenmatt's Die Physiker. (Oxford UP edition).

**Style:** varies with instructor.

**Grading:** 15% final exam, 10% reports/papers, 15% special projects, 30% quizzes, 22% class participation, 8% other evaluation. Interviews

**GER 1022 Beginning German Review**

**5 credit(s); prerequisite Placement above 1001;**

**Instructor:** STAFF

**Description:** Intended for students with previous experience in German, primarily those who have studied German in high school or at community colleges, or who are transfer students. The course involves intensive review of all four language modalities (listening, reading, speaking, writing), with a proficiency emphasis to prepare for German 1003. By the end of the course students should be able to discuss familiar topics, such as every day activities, free-time occupations, or career choices, and have become familiar with some contemporary social issues in the German-speaking countries. There is a cultural reader for this course, Grenzverkehr. This course includes writing assignments that are process-oriented and require students to work together in editing groups. All class sessions involve extensive student interaction and require an average of 2 hours of outside preparation.

**Style:** student discussion and interaction

**Grading:** 10% final exam, 12% reports/papers, 4% special projects, 32% quizzes, 29% class participation, 13% other evaluation. reading/group assignments, 4% computer/audio lab

**Exam Format:** Written

**GER 1905 Freshman Seminar: Sonnets, Slams & Slow Reading**

**Poetry Up Close**

**A-F only, 3 credit(s); max credits 6; prerequisite French;**

**Instructor:** Melin, Charlotte Ann

**Description:** Think that poetry is an old medium that cannot compete in the digital world or that it is too puzzling? Many poets agree, but only when they really want you to pay attention to poetry. In this seminar, we will explore how poems work on the printed page and in performances, comparing the aesthetics and constraints of traditional form with the exuberance of spoken verse. Our texts will be poems by diverse authors, some in...
multi-media presentations (German in English translation, Anglo-American, and other international examples). We will work on strategies for enjoying and interpreting poems, practice techniques for slow or close readings, and experiment with turning poetry into performance. Our discussions will ask how sonnets, slams, verse at presidential inaugurations, and other poetic forms invite us in as participants.

GER 301fW Conversation and Composition

4 credit(s); prereq 1004; Meets CLE req of Writing Intensive;

Instructor: STAFF

Description: This course is designed to refine students' oral and written expression and aid in the development of critical analysis skills. Contemporary readings introduce important communicative modes of language (description, narrative, debate, report, text analysis), while a grammar review supports work on finer grammar points. Multi-media materials (video clips, feature films, computer resources) will complement the other instructional materials. Graded work includes active class participation, essay writing and revision, individual and group oral presentations and projects, and informal writing assignments of varying lengths.

Style: 10% Lecture, 10% Film/Video, 30% Discussion, 35% Small Group Activities, 15% Student Presentation.

Grading: 30% reports/papers, 25% quizzes, 10% journal, 25% in-class presentation, 10% class participation.

GER 3104W Reading and Analysis of German Literature

4 credit(s); prereq 3011; Meets CLE req of Literature; meets CLE req of Writing Intensive;

Instructor: Rothe, Matthias

Description: Are fears wiser than hopes? If so, we should be aware of literature, it might harm us seriously! But what exactly does it do to us? As a first step, we will examine warnings given by Plato, Rousseau, Goethe's enemies, Goethe himself, Karl Philipp Moritz, and 18th-century doctors, as well as East German authorities and modern psychologists. These may well give a better idea of the power literature can have over our minds and bodies than many manifestos written in its praise. But where exactly does this power come from? From the author or from the text? From us as readers or even from history? As a second step, we will follow up these questions and employ various interpretative strategies that result from the answers. An essential aspect of this course is a "literature laboratory": throughout the term, we will regularly engage in collective reading activities, performance and creative and imitative writing. The goal is to put an equal emphasis on literary theory, works of literature, and literary practice, thereby expanding our sensibility to literary texts in general and German literature in particular. Literary texts include short stories, drama and poetry by Goethe, Georg Buchner, Kurt Schwitters, Robert Musil, Paul Celan, Ingeborg Bachmann, Sara Kirsch, Thomas Brash, Wolfgang Hilbig, Gert Neumann and contemporary German slam poetry. General background reading: Jonathan Culler, "Literary Theory: A Very Short Introduction"

Grading: 60% reports/papers, 15% written homework, 25% class participation.

GER 3104W Reading and Analysis of German Literature

4 credit(s); prereq 3011; Meets CLE req of Literature; meets CLE req of Writing Intensive;

Instructor: Spreitzer, Brigitte

Description: This course is designed to refine students' oral and written expression and aid in the development of critical analysis skills. Contemporary readings introduce important communicative modes of language (description, narrative, debate, report, text analysis), while a grammar review supports work on finer grammar points. Multi-media materials (video clips, feature films, computer resources) will complement the other instructional materials. Graded work includes active class participation, essay writing and revision, individual and group oral presentations and projects, and informal writing assignments of varying lengths.

Style: 10% Lecture, 10% Film/Video, 30% Discussion, 35% Small Group Activities, 15% Student Presentation.

Grading: 30% reports/papers, 25% quizzes, 10% journal, 25% in-class presentation, 10% class participation.

GER 3510 Topics in German Studies: Art, Politics and Diversity

3 credit(s); max credits 9, 3 completions allowed; prereq 3011;

Instructor: Wolbert, Barbara

Description: In this course on the intersection of visual cultural studies and German and European studies, we will focus on art events and cultural institutions - such as exhibitions and museums - in the context of globalization. We will deal with the representation of racial, national, cultural and religious diversity and its representation in the public sphere. In particular, we will concentrate on a variety of forms of expressive culture on the politics of exclusion and inclusion in German art worlds. We will describe the appropriation of concepts such as integration and multiculturalism into political discourses in Germany. Through exhibits of art referred to as "international art?, "global art?, "ethnic art?, "Non-Western art?, we will analyze the notion of otherness at a particular point in time and critically examine German cultural politics. Thus, we will take a critical view of visual culture, political power and alterity. The course addresses this issue from a diachronic perspective: our discussions will follow a sequence of art exhibition cases from Imperial Germany, the Weimar Republic, Nazi Germany, the Cold War Germany, and Unified Germany. While the selection of catalogues and slides from exhibition sites focuses on the German case, the theoretical readings allow a more general introduction to German studies, cultural studies, and visual studies. You may take this course as an introduction to German cultural politics; it may also serve the interests and needs of students who are seeking to expand their knowledge of German culture and politics. This course aims furthermore at broadening your understanding of the place and role of art in society and raising your awareness of diversity issues and questions of representation. Working not only with texts, but also studying displays on site and dealing with visual images, you will be encouraged to formulate descriptions carefully, develop your own interpretations, and critically make use of the readings.

Style: 50% Lecture, 25% Discussion, 20% Student Presentation, 5% Field Trips.

Grading: 10% mid exam, 20% final exam, 40% reports/papers, 15% in-class presentation, 15% class participation.

Exam Format: Mid term: open questions/short answers expected; final exam: essay form (take-home-exam).

GER 3511W German Civilization and Culture: Middle Ages to 1700

3 credit(s); Meets CLE req of Writing Intensive;

Instructor: Wakefield, Ray M

Description: This course, with lectures in English, offers an overview of the cultural, political, and social development of the German-speaking countries from the earliest days of contact between the Germanic tribes and the Romans until 1700. Emphasis will be placed on the way in which present-day Germany views its medieval and early modern past, and the role of the Middle Ages, the Reformation, and the Thirty Years War in the creation of a German national identity. Topics to be discussed include myths about the origins of the Germans, the Germanic reshaping of the ancient Roman world, the role of the German Empire in the development of medieval Christianity, the social position of women in medieval and early modern times, medieval and early modern court culture, Reformation and Counter-Reformation culture, Baroque culture in the German Empire. Discussions will involve many types of cultural artifacts, e.g., literary, historical, religious, philosophical texts; paintings, engravings, architecture; medieval and early modern music. Authors to be discussed include Tacitus, Einhard, Hildegard von Bingen, Luther, Grimmelshausen, et al. English discussion sections; question-and-answer sessions in German.

GER 3593 Directed Studies: German-Speaking Countries

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
GER 3604W Introduction to German Cinema
3 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Global Perspectives; meets CLE req of Writing Intensive;
Instructor: Mc Cormick,Rick
Description: This is an introductory course in German cinema, one of the most influential national cinemas. The films to be studied include classic films like Robert Wiene?s The Cabinet of Dr. Caligari (1920) and Fritz Lang?s Metropolis (1927) from the golden age of German cinema during the 1920s; the infamous, anti-Semitic Nazi melodrama, Jew Suss (Veit Harlan, 1940); Wolfgang Staudte?s The Murderers Are Among Us (1946) the very first postwar German film, made in the rubble of Berlin; I Was 19 (1967), an ?anti-fascist? film made by East Germany?s Konrad Wolf; examples of the ?New German Cinema,? films exploring the political and psychological trauma of 20th-century German history by West German directors like Rainer Werner Fassbinder and Margarethe von Trotta in the 1970s & 1980s; and some popular feature films made after reunification in 1990, such as the international hits Run, Lola, Run (1998) and The Edge of Heaven (Auf der anderen Seite, 2007), Turkish-German director Fatih Akin?s ?transnational? film about crossing borders. German 3604 meets the Arts & Humanities requirement. In this course you will engage in detailed analysis of and reflection on exemplary works of the German cinema. Through engaging in class discussion, small group work, class presentations, threaded discussions on WebVista, and in writing two 5-10 pp. essays, you will engage in critical evaluation of the films we will study?this is the ?work? that film scholars do, and you will be introduced to it. As part of the ?work? of critical evaluation, you will also examine how these films relate to the cultural and historical context in which they arose. This is crucial to our goal of exploring the role that these films have played in German society in each of the historical periods in which these films were produced. Thus the course also meets the Liberal Education theme of Global Perspectives. The course clearly focuses on the world beyond the U.S. through its focus on Germany. You will learn the how German cinema differs from American cinema aesthetically and through reference to a different social and political history, which has also made it play a different political role in some historical periods. You will be encouraged to reflect on these differences and on the role you think cinema might or should play within or across various cultures and societies. The course is designated as Writing Intensive as well.

GER 3631 Jewish Writers and Rebels in German, Austrian, and American Culture
3 credit(s); prereq No knowledge of German required; cr toward major or minor requires reading in German; Credit will not be granted if credit has been received for: JWST 3631;
Instructor: Morris,Leslie C
Description: One of the major questions that the course will ask is if there is such a thing as Jewish writing. Gilles Deleuze and Felix Guattari?s Toward a Minor Literature will serve as the starting point for the course, for they propose a theory that seeks to explain how minority groups construct stories, novels, and poems within a major language. Therefore, when Jewish writers compose their works, they inevitably challenge majority assumptions in German, Austrian, and American culture. Not only do they undermine Jewish stereotypes embedded in the majority culture, but they also ask: What does it mean to be German, Austrian, and American? Can we define a national character? Is there really such a thing as national character? Jewish writers such as Kafka, Celan, Canetti, Broch, Hilsenrath, Malamud, Biller, Honigmann, Bellow, and Roth have developed remarkable differences that cut across German, Austrian and American cultures, and it will be the purpose of this course to study these affinities and determine whether there is such a thing as Jewish writing. In addition, the course will deal with the major crises of the twentieth century that have compelled Jewish writers often to assume the role of outsider and rebel. Though this is not a course that deals with the Holocaust per se, it will analyze how anti-Semitism in Europe and America led to the destruction of European Jewry and how Jewish writers have responded to this catastrophe and continue to do so in new works.
Style: 15% Lecture, 85% Discussion.
Grading: 80% reports/papers, 20% class participation.

GER 3641 German Folklore
3 credit(s); prereq No knowledge of German required; cr for major or minor by arrangement with instructor; Meets CLE req of Global Perspectives; meets CLE req of Literature;
Instructor: Liberman,Anatoly
Description: Folklore is a broad area, including but not limited to tales, poems, songs, ritual drama, and dance. However, this course will be limited to the study of so-called verbal folklore of the German-speaking world, rather than folk music, dances, or material culture. It pursues two goals--to introduce students to beautiful and famous tales and, while doing so, to the world of oral culture, whose main features are similar all over the world. Our main reading will be the Grimms' tales. This collection will be supplemented by a book dealing with the most important characteristics of oral transmission. The main medium of the course is lectures, but they will alternate with discussion. There will be a takehome midterm, a takehome final (essay questions in both); also a paper, about five pages long will be required. The course spans the areas of literature, popular culture, and, to a smaller extent, mythology, religion, and cultural anthropology. No prerequisites.
Style: 80% Lecture, 20% Discussion.
Grading: 20% mid exam, 40% final exam, 40% reports/papers.
Exam Format: Essay.

GER 3993 Directed Studies
1-4 credit(s), max credits 12, 3 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: STAFF
Description: Guided individual reading or study. The student approaches an appropriate professor with a topic of interest, and if the professor has time and is willing to guide the student, the student, along with the professor, fills out a form which is available in the department office (205 Folwell). On this form, they specify the topic, reading and study materials, and form of evaluation.

GER 4001 Beginning German
2 credit(s); prereq Grad student;
Instructor: STAFF
Description: German 4001 is intended for beginners and introduces students to the four language skills areas: speaking, writing, listening, and reading. Homework assignments become the basis for student-to-student interaction, small group work and role-play in class. The text for the course, Wende, covers reading and listening strategies useful in language learning. Along with this textbook we use a German cultural reader called Oktoberfest, a mystery which takes place in Munich, and grammar reference materials. Students will also complete a variety of writing activities, including essays. First-year language courses involve extensive student interaction, partner activities, and group work. Expect an average of 1.5 hours of outside preparation for each class session hour.
Style: mostly discussion and student involvement and interaction.
Grading: 20% final exam, 12% reports/papers, 4% special projects, 30% quizzes, 30% class participation, 14% other evaluation. reading/group work assignments and computer and audio lab.
Exam Format: written.
GER 5410 Topics in German Literature: Psychoanalysis & Women’s Literature, c.1900-1930
3 credit(s), max credits 9, 3 completions allowed; prereq 3011;
Instructor: Spreitzer, Brigitte
Description: Austrian women writers began early to adopt Freudian theory in their literary works. We will have a look at Freud's most important writings and theories to be able to analyze texts of Lou Andreas-Salome, Hermine Hug-Hellmuth, Maria Lazar, Marta Karlweis, Mela Hartwig, und Veza Canetti. The analyses as well as Freud's theories themselves should be situated in Fin-de-siecle Vienna and modernity.

GER 5610 German Literature in Translation: Modernity through the eyes of Walter Benjamin
3 credit(s), max credits 9, 3 completions allowed; prereq No knowledge of German required; cr toward major or minor requires reading in German;
Instructor: Rothe, Matthias
Description: No one has developed better than Walter Benjamin the forms of observation which embodied for instance in the figure of the flaneur which allow for descriptions that are at the same time almost immediate expressions of experience and abstract reflections. Walter Benjamin's literary essays, autobiographical sketches and his thoughts on history, literature and art are both a symptom of modernity and its analysis. We will explore these two dimensions of his work by means of a close reading of his texts, tracing the changes of perception and awareness that define the mentality of modernity. Furthermore we will examine the history of Benjamin's reception in East and West Germany, which sheds light on complex and intricate personal and political interrelations and hence is an important part of German intellectual history. The course will be taught in English. The selection of Benjamin's texts will be available in English and will include The Task of the Translator, Goethe's Elective Affinities, One-Way Street, A Berlin Childhood around 1900, A Short History of Photography, The Work of Art in the Age of Its Technological Reproducibility, On the Concept of History and various short essays. Credit towards major and minor will require some reflections on the English translation of Benjamin's key notions.
Style: 30% Lecture, 70% Discussion.
Grading: 50% reports/papers, 20% reflection paper, 30% class participation.

GER 5740 Readings in Philology: Middle Dutch
3 credit(s), max credits 9, 3 completions allowed;
Instructor: Liberman, Anatoly
Description: Student may contact the instructor or department for information.

GER 5993 Directed Studies
1-4 credit(s), max credits 12, 12 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: STAFF
Description: Guided individual reading or study. The student approaches an appropriate professor with a topic of interest, and if the professor has time and is willing to guide the student, the student, along with the professor, fills out a form which is available in the department office (205 Folwell). On this form, they specify the topic, reading and study materials, and form of evaluation.

GER 8300 Topics in Literature and Cultural Theory: Faust, con’t.
3 credit(s), max credits 9, 3 completions allowed;
German, Scandinavian, and Dutch
192 Klaeber Court

GSD 3451 V Honors Major Project Seminar
A-F only, 3 credit(s); prereq Honors student; Credit will not be granted if credit has been received for: GSD 3451 W; Meets CLE req of Writing Intensive;
Instructor: Houe, Poul
Description: Student may contact the instructor or department for information.

GSD 3451 W Major Project Seminar
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: GSD 3451 V; Meets CLE req of Writing Intensive;
Instructor: Houe, Poul
Description: GSD 3451 is a required course that provides guidance and feedback to students who write their major projects for the B.A. degrees in German and Scandinavian. The Major Project Seminar provides a framework to help students conceptualize, research and write their major projects. The project should demonstrate the student’s ability to define a research problem, gather and analyze pertinent information, use secondary sources appropriately, present arguments and propose solutions in a clear and logical manner. Students will work with the help of the course instructors to develop and carry out their plans for research and writing. The course is designated as Writing Intensive; over the course of the semester the students will write and revise a substantial paper, normally 20-25 pages, double-spaced, usually written in English following standard scholarly format. Each student will also be assigned a second reader? from the faculty who can provide feedback on the student’s? project proposal, bibliography, and at least one draft of the project. GSD 3451 W and 3451 V meet together; 3451 V is meant for honors students planning to graduate with Latin honors. Please note that the major project seminar is offered during only the fall semester.

GSD 5103 Teaching of Germanic Languages
3 credit(s);
Instructor: Melin, Charlotte Ann
Description: This seminar is designed primarily for first-time graduate TAs in the department; the course is conducted in English. Its goal is to equip new instructors with practical and theoretical knowledge about language teaching. Instructors are encouraged to develop self-reflexive practices and to create teaching materials. Discussions cover such topics as the following: theories of language acquisition, the role of contextualization, approaches to helping learners develop language skill proficiency (reading, writing, listening, and speaking) as well as cultural understanding, technology resources, and assessment practices.
Style: 10% Lecture, 90% Discussion.

GSD 8001 Approaches to Textual Analysis
3 credit(s);
Instructor: Hueser, Rembert
Description: Student may contact the instructor or department for information.

GSD 8801 Dissertation Seminar
S-N only, 3 credit(s);
Instructor: Joeres, Ruth-Ellen B
Description: Student may contact the instructor or department for information.

Gerontology
D-351 Mayo (Box 197 UMHC)

GERO 5101 Seminal Milestones in the Biology of Aging
1 credit(s); prereq NIA training grant Functional Proteomics of Aging [grad student or postdoc fellow] or [biology research grad student, instr consent ];
Instructor: Thompson PhD, LaDora V
Description: Student may contact the instructor or department for information.

GERO 5105 Multidisciplinary Perspectives on Aging
3 credit(s);
Instructor: STAFF
Description: This course is designed to: develop an understanding of aging as a normal process; describe the biological, psychological, and sociological consequences of aging; identify major health theories and approaches that different disciplines contribute to the field of gerontology; describe selected successful and maladaptive responses of older adults to the development tasks, opportunities and crises that confront them; identify specific interventions and agencies that enhance the life of the older person; discuss the value of a multidisciplinary approach to the study of aging and to the provision of services to older adults that enhance the student’s own values and beliefs about the aging process and older adults. The class format includes lectures, guest speakers, discussions, and readings of current material relating to aging and older adults. Specific topics covered include: Sociological; Psychological Aspects of Aging; Theories of Aging; Death and Bereavement; Issues and Problems of Older Adults in America; Human Services and Their Delivery Systems (Health, Nutrition, Long-term Care, Education); Public Policy & Legislation; Environment and Housing; Retirement. The course is targeted to upper division undergraduates and graduate students.
Style: 80% Lecture, 20% Discussion.

GERO 5111 Studying Aging and Chronic Illness

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.

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GLOS 1112 Globalization and Social Justice

2 credit(s); prereq introductory course in epidemiology or instructor consent
Instructor: Radosевич, David M
Description: Student may contact the instructor or department for information.

GERO 5115 Introduction to Geriatrics
S-N only, 2 credit(s)
Instructor: Kane, Robert L
Description: Student may contact the instructor or department for information.

GERO 8020 Seminar in Gerontology
S-N only, 2 credit(s); prereq instructor consent
Instructor: Thompson PhD, LaDora V
Description: Student may contact the instructor or department for information.

Global Studies

214 Social Science

GLOS 1015W Globalization: Issues and Challenges
4 credit(s); Credit will not be granted if credit has been received for: GLOS 1015V; Meets CLE req of Global Perspectives; meets CLE req of Writing Intensive
Instructor: Farmer, Edward L
Description: This class is an ambitious and demanding course designed as an introduction to global history in the last fifty years. The course will provide you with a framework for thinking about the recent past, world geography, and some general trends. The course is organized comparatively, and will emphasize selected "cases" in Asia (The People's Republic of China and the Republic of China), Africa (South Africa and Mozambique) and Latin America (Cuba and Guatemala). Throughout the course we will not only attempt to understand the big picture of global history (East-West rivalry in the Cold War, the North South division in development, global ecology and economy) but also how changes have affected people's everyday lives. We do this through the concepts of livelihood and identity that reveal the impact of national and international forces at the personal level. We will seek out the "voices" of individuals by reading short stories and biographical accounts.
Style: 50% Lecture, 40% Discussion. Peer Review of Writing
Grading: 25% mid exam, 20% final exam, 30% reports/papers, 25% class participation.
Exam Format: Identification 20%; Essay 80%

GLOS 1112 Globalization and Social Justice
A-F only, 3 credit(s)
Instructor: Skaria, Ajay
Description: What does globalization involve? It involves constantly changing flows of "possessions", "ideas" and "humans and non-humans" in time and space. It also involves social arrangements such as nation-states, the UN, the World Trade Organization, the World Bank, the International Monetary Fund, and various non-governmental organizations and social movements that attempt to manage these flows. What are these flows? The flow of "possessions" includes commodities, stocks & bonds, currencies, foreign investments, remittances, and technologies (including biogenetic and weapons technologies). Correspondingly, the flow of "ideas" includes democracy, human rights, free market as well as fair trade doctrines, religious ideologies, and cultural forms (including music, arts, and TV/cinema). Finally, flows of humans and non-humans include human migrations, tourism, animal and plant movements, water, diseases and epidemics, greenhouse gases and toxic and non-toxic waste. These flows have dissimilar patterns and unequal impacts on people around the world. Attempts to manage them are also unequal. This implies that in addition to the question "What does globalization involve?" we need to ask a second and equally important question - What is the justice of globalization?. Using carefully selected readings and audio-visual media this course will tackle both questions in order to think the possibility of a better, more just world.
Style: 60% Lecture, 20% Discussion. Audio-visual media (film and documentary clips, audio clips)
Grading: 20% mid exam, 25% final exam, 25% reports/papers, 15% quizzes, 15% class participation.
Exam Format: Short definitions and short essays

GLOS 1905 Freshman Seminar: Latin America Goes to the Movies
A-F only, 3 credit(s); prereq freshman
Instructor: Kaminsky, Amy K
Description: In the last 20 years films from Brazil, Argentina, Mexico, and Cuba have made a major splash both in their own countries and in Europe and the US; and wonderful movies have come out of other Latin American nations as well. Once a week we will watch one of these films together and discuss it, asking the following questions: How do filmmakers in poor nations manage to make movies? What do those movies tell us about the nations they come from and about ourselves? What techniques do filmmakers use to tell stories and draw us into them? How do movies help form national culture and identity? How do these films confirm our ideas about the world, and how do they shake us up?
Style: 10% Lecture. 50% Film/Video, 40% Discussion.
Grading: 35% reports/papers, 45% reflection paper, 20% class participation. Your first paper will be worth 15 points and your second will be worth 20. "Reflection papers" refer to the responses to the readings that you will post on the course web site.
Exam Format: There are no exams.

GLOS 3031 Altering States: After Communism
3 credit(s)
Instructor: Kaiser, Sara
Description: Student may contact the instructor or department for information.

GLOS 3144 Knowledge, Power, and the Politics of Representation in Global Studies
4 credit(s); prereq 6 cr in social sciences including [GEOG 1301 or HIST 1012 or HIST 1015 or HIST 1018 or HIST 1019 or POL 1025], global studies major; Credit will not be granted if credit has been received for: GLOS 3144H
Instructor: Aaltaab, Naheed Gina
Description: Student may contact the instructor or department for information.

GLOS 3144H Honors: Knowledge, Power, and the Politics of Representation in Global Studies
4 credit(s); prereq 6 cr in social sciences including [GEOG 1301 or HIST 1012 or HIST 1015 or HIST 1018 or HIST 1019 or POL 1025], honors global studies major; Credit will not be granted if credit has been received for: GLOS 3144; Instructor: Aaltaab, Naheed Gina
Description: Student may contact the instructor or department for information.

GLOS 3302 Debating "Development": Contested Visions
A-F only, 3 credit(s); prereq [3101, 3144] or instructor consent;
Instructor: Gidwani, Vinay Krishin
Description: Our primary objectives in this undergraduate seminar will be to take stock of the astonishingly versatile concept of 'development' critically probe its workings across a range of geopolitical and historical settings. We will ask: What is 'development' and why has it come to saturate common sense as an indispensable given of our modern existence (so much so that we measure the success or failure of our life trajectories via terms like "career development")? How should we account for the power of 'development' in the lives of rich and poor nations, and rich and poor people? More profoundly, we will ask whether 'development' is complicit in reinforcing categories such as 'rich' and 'poor' / 'developed' and 'backward' / or 'civilized' and 'uncivilized'? The course will cover both, the classic literature on development as well the latest writings on it. Class format will be a combination of lectures and discussions.
Style: 60% Lecture, 20% Discussion. 20% Group presentations
by students and audio-visual materials (primarily film and documentary clips).

**Grading:** 30% mid exam. 35% Final Research paper: 15% Group in-class presentation; 10% Commentary on class presentation topic; 10% Class attendance and participation.

**Exam Format:** Midterm exam is combination of multiple choice, short answers and a long essay based on lectures and assigned readings.

**GLOS 3401 International Human Rights Law**

A-F only. 3 credit(s); prereq [3101, 3144] or instr consent;

**Instructor:** Frey, Barbara A

**Description:** International Human Rights law is designed to introduce students to issues, procedures and advocacy strategies involved in the promotion and protection of human rights worldwide. The class encourages students to analyze case situations and to evaluate the most effective methods to prevent human rights violations. Because of the evolving nature of the laws and issues in this field, students can participate as strategists and investigators on human rights issues. The instructor, Barbara Frey, is a lawyer and human rights activist.

**Style:** 50% Lecture, 25% Discussion. guest speaker, debates and other exercises

**Grading:** 25% mid exam, 40% final exam, 25% reports/papers, 10% class participation.

**Exam Format:** Short answer and essay

**GLOS 3550V Honors Course: Supervised Research Paper**

4 credit(s); Meets CLE req of Writing Intensive;

**Instructor:** Goldman, Michael R

**Description:** The purpose of this course is to assist students in fulfilling CLA's senior project requirement, the 'capstone' of the undergraduate career. Enrollment is limited to student majors in Global Studies. The class provides a structure and guided format for completing the senior project. There will be two options: the research option and the service learning option. For the first, students select a topic, formulate a research question, read on the topic, conduct preliminary research, and write up lessons learned from the experience. Emphasis will be on the preparation, reading, and thought that goes into research, less so the implementation, as time is limited. Students can also choose the 'service learning' option, in which they will be required to do community service learning and to write either a field research paper or an action project paper based on their work with participating community organizations. The final project will build on the values of critical thinking, effective communication, diversity, and social responsibility that are cultivated in Global Studies. Course readings provide guidelines about how to ask sociological questions, and the ethical questions concerning research. Course work requires intense individual engagement in the design of a project, and active class discussion of the issues students face in the process.

**GLOS 3613W Food, Culture, and Society**

A-F only. 3 credit(s); Credit will not be granted if credit has been received for: SOC 3613W; Meets CLE req of Global Perspectives; meets CLE req of Social Sciences; meets CLE req of Writing Intensive;

**Instructor:** Schurman, Rachael

**Description:** Hamburgers and a Coke, rice and beans, collard greens, wortongou, crème brûlee. What meanings and feelings do these foods conjure up, and for whom? Where are their key ingredients produced? Who prepares these dishes, and who eats them? This course is built on two key premises: first, that the production, distribution, and consumption of food involves relationships among different groups of people, and second, that one can gain great insights into these social relations and the societies in which they are embedded through a sociological analysis of food. Among the themes this course will explore are the different cultural and social meanings attached to food; class and diet; food, culture and body image; the industrialization of agriculture; the global food economy; the debate over genetically modified food; and movements toward a more sustainable food system. This class course is to teach you how to view the world of food and agriculture from a sociological perspective. A more specific objective is to get you to think analytically about something that is so “everyday” that most of us take it for granted: where our food comes from, why we eat the way (and what) we do, and the kind of social relationships involved in our encounters with food. Students can expect to read between 40-70 pages a week (of interesting reading!), produce one short paper and one longer (12-15 page) research paper on a course-related topic, and participate in several out-of-classroom exercises (which will include some write-up) during the course of the semester. The course is heavily discussion based, and active participation is required.

**GLOS 3701W Population in an Interacting World**

4 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Social Sciences; meets CLE req of Writing Intensive;

**Instructor:** Leitner, Helga

**Description:** The aim of this course is to provide students with a basic understanding of and appreciation for human population phenomena and problems in an increasingly interdependent world. This will involve an investigation of patterns and trends in fertility, mortality and migration of human populations in different parts of the world and an examination of how these are both shaped by, and engender economic, political, cultural and environmental change. Throughout the course, particular attention is paid to: 1) contemporary population problems at the global, national and local scale, including the world population explosion, high levels of fertility in parts of the less developed world, record low fertility and population ageing in industrialized countries, the HIV/AIDS pandemic and major world health problems, increasing levels of international migration, refugee crises, massive rural to urban migrations in the less developed world; 2) policies adopted to address these problems such as family planning policies to reduce fertility levels and migration policies; and 3) the gender dimension of contemporary population problems and policies, including women's reproductive health and rights. In addition, this course will introduce students to various population theories, basic sources and measures for the study of population dynamics, and allow them to gain basic skills and experience in data analysis, interpretation, writing research reports and oral presentations.

**GLOS 3900 Topics in Global Studies: Utopian Visions in the Modern Era**

3 credit(s), max credits 15, 3 completions allowed;

**Instructor:** Issett, Christopher Mills

**Description:** Perfect worlds have been present in the imagination since ancient times. People the world over have imagined what it would be like to live without pain or suffering, violence or hardship, poverty or fear. This course will examine a selection of both the ideas and practices of those who thought about and worked toward ‘better’ societies and ‘utopias’. The course has three areas of focus. First, we look at how writers crafted images of ideal worlds, what they hoped such works would do, and how these works were received. We will read works from across the political spectrum and time from Thomas Moore to Adam Smith, Bentham, Marx, and Tolstoy. Second, we examine intentional and designed communities such as appeared in the early American religious colonies, in the Paris Commune of 1871, the dramatic 20th century revolutions in Russia and China, and in the counter-cultural movements of the post-war era. Third, we will use media (film, art, literature, architecture and design) to see how utopian plans, ideas, and views remain a part of contemporary landscape as objects of both ridicule and longing. Throughout the course we will be attuned to how these visions travelled, how actors in different cultures sought to use certain utopian ideas in their own plans to bring about a perfect society.

**GLOS 3900 Topics in Global Studies: Novels and Nations**

3 credit(s), max credits 15, 3 completions allowed;

**Instructor:** Kaminsky, Amy K

**Description:** Virginia Woolf described fiction as a spider's web, attached lightly at its four corners to life. If the web is pulled from its moorings it collapses into a sticky mass. Yet to look only to the places and ways it attaches to the wall of reality is to miss the
complexity of the web itself. This class teaches students to explore and enjoy the intricacies of the web of fiction without losing sight of the structures that hold it up. Among the questions we ask are: What is the relation between the literature produced within it? How do emerging nations enlist literature in their claims for nationhood? How does the institution of literature underpin Empire? How does gender, as an organizing principle of identity, inflect literary representations of the nation? We will examine these questions in relation to novels and other literary works. The course is also designed to familiarize students with the conventions and inner workings of literary texts. A major goal of the course is to give interdisciplinary students in GWSS and Global Studies, much of whose curriculum leans toward the empirical and theoretical world of the social sciences, the tools to understand the pleasure of reading, the way the literary text works, and its privileged position as an apparatus of representation. The major works we will read are: Saiman Rushdie, _Midnight’s Children_ Virginia Woolf, _Orlando_ Gabriel Garcia Marquez, _One Hundred Years of Solitude_ Isabel Allende, _The House of the Spirits_ Chinua Achebe, _Things Fall Apart_ Buchi Emecheta, _The Joys of Motherhood_ Rosario Ferre, _The Youngest Doll_ 

**Style:** 25% Lecture, 5% Film/Video, 50% Discussion, 10% Small Group Activities, 10% Student Presentation. Breakdown is approximate and subject to change.

**GLOS 3900 Topics in Global Studies: New Global Economy**

3 credit(s), max credits 15, 3 completions allowed;

**Instructor:** Schurman, Rachel

**Description:** Did you ever wonder why so many of the items you buy at Target come from China or why a financial crisis that started on Wall St. and was rooted in U.S. mortgage securities affected countries around the world? And why is the U.S. auto industry, once a motor of economic growth for the country and a key source of class mobility for many working class Americans, practically a thing of the past? This course will focus on the changes that have taken place in the global economy over the last sixty or so years, and the economic theories, institutional changes, and technological developments that have undergirded them. More concretely, we will examine the movement away from relatively regulated national economies and the rise of neoliberal ideology and policy. Among the substantive topics we will explore are the emergence of China as an economic powerhouse, the transformation of work associated with economic globalization, the changing culture(s) of capitalism, the Walmart phenomenon (in all its complexity), and the recent global financial crisis. Grades will be based on class attendance and active participation (20%), regular commentaries on the readings (20%), student research projects/exercises (35%), and a final exam (25%).

**Style:** 40% Lecture, 10% Film/Video, 30% Discussion, 5% Guest Speakers. 15% Large and Small Group Activities

**Grading:** 25% final exam, 35% special projects, 20% class participation, 20% commentaries.

**Exam Format:** The exam will include term definitions, some short answer questions, and two longer essay questions.

**GLOS 3900 Topics in Global Studies: Global Migration and Photography**

3 credit(s), max credits 15, 3 completions allowed;

**Instructor:** Wolbert, Barbara

**Description:** 10-day course on the intersection of visual cultural studies and German and European studies, we will focus on art events and cultural institutions - such as exhibitions and museums - in the context of globalization. We will deal with the representation of racial, national, cultural and religious diversity and its representation in the public sphere. In particular, we will concentrate on a variety of forms of expressive culture on the politics of exclusion and inclusion in German art worlds. We will describe the appropriation of concepts such as integration and multiculturalism into political discourses in Germany. Through exhibits of art referred to as “international art,” “global art,” “ethnic art,” “Non-Western art,” we will analyze the notion of otherness at a particular point in time and critically examine German cultural politics. Thus, we will take a critical view of visual culture, political power and alterity. The course addresses this issue from a diachronic perspective: our discussions will follow a sequence of art exhibition cases from Imperial Germany, the Weimar Republic, Nazi Germany, the Cold War Germanys and Unified Germany. While the selection of catalogs and slides from exhibition sites focuses on the German case, the theoretical readings allow a more general introduction to German studies, cultural studies, and visual studies. You may take this course as an introduction to German cultural politics; it may also serve the interests and needs of students who are seeking to expand their knowledge of German culture and politics. This course aims furthermore at broadening your understanding of the place and role of art in society and raising your awareness of diversity issues and questions of representation. Working not only with texts, but also studying displays on site and dealing with visual images, you will be encouraged to formulate descriptions carefully, develop you own interpretations, and critically make use of the readings.

**Style:** 50% Lecture, 25% Discussion, 20% Student Presentation, 5% Field Trips.

**Grading:** 10% mid exam, 20% final exam, 40% reports/papers, 15% in-class presentation, 15% class participation.

**Exam Format:** Mid term exam: open questions/short answers expected; Final exam: essay form (take-home-exam).

**GLOS 3981W Major Project Seminar**

A-F only, 3 credit(s); prereq dept consent; Meets CLE req of Writing Intensive;

**Instructor:** Goldman, Michael R

**Description:** The purpose of this course is to assist students in fulfilling CLA’s senior project requirement, the ‘capstone’ of the undergraduate career. Enrollment is limited to student majors in Global Studies. The class provides a structure and guided format for completing the senior project. There will be two options: the research option and the service learning option. For the first, students select a topic, formulate a research question, read on the topic, conduct preliminary research, and write up lessons learned from the experience. Emphasis will be on the preparation, reading, and thought that goes into research, less so the implementation, as time is limited. Students can also choose the ‘service learning’ option, in which they will be required to do community service learning and to write either a field research paper or an action project paper based on their work with participating community organizations. The final project will build on the values of critical thinking, effective communication, diversity, and social responsibility that are cultivated in Global Studies. Course readings provide guidelines about how to ask sociological questions, and the ethical questions concerning such research. Course work requires intense individual engagement in the design of a project, and active class discussion of the issues students face in the process.

**GLOS 3981W Major Project Seminar**

A-F only, 3 credit(s); prereq dept consent; Meets CLE req of Writing Intensive;

**Instructor:** Payne, Leigh A

**Description:** Student may contact the instructor or department for information.

**GLOS 3993 Directed Study**

1-5 credit(s), max credits 12, 12 completions allowed; prereq instr consent , dept consent , college consent ;

**Instructor:** STAFF

**Description:** Student may contact the instructor or department for information.

**GLOS 4406 Sociology of International Law**

A-F only, 3 credit(s); prereq SOC 1001 or SOC 3101 or SOC 3102 or SOC 3111 or instr consent ; Meets CLE req of Global Perspectives;

**Instructor:** Golden, Shannon Leigh

**Description:** **JUST ADDED** This course will look at the rise of international law, focusing particularly on the development of human rights norms. We will analyze the actors, processes, history, and debates of international law, and will also explore a variety of conflicts and issues to which international law is applied. Cases explored in greater depth include the Holocaust.
Predicted credit(s): 3, max credits 12, 3 completions allowed; prerequisite Graduate student or instructor consent.

Description: This 3-credit seminar will study the histories, philosophies, and activities of human rights activists and organizations. The course examines the theoretical basis of the human rights movement, the principles underlying key organizations in the human rights field, as well as their strategies, tactics, and programs. The class provides an opportunity to put in perspective students’ previous experiences as interns or staff with non-governmental organizations (NGOs) in the human rights field. The class will use case studies and other active methods to understand and to evaluate the work of human rights activists. Topics to be considered include fact-finding and documentation, campaigns on human rights issues, cultural relativism, economic rights, and corporate responsibility for human rights. Students will consider the basic organizational structure and fundraising needs of NGOs. Students will design and present a research project based on their selection of in-class topics. Readings include material on the history of NGOs; roots and development of the human rights movement; analysis of key NGOs; advocacy within international institutions; and reports and publications from NGOs working in the field.

Style: 15% Lecture, 75% Discussion. 10% Group Work.
Grading: 20% reports/papers, 20% class participation, 30% professional presentation; 30% group project.

GLOS 5990 Topics in Global Studies: Global Migration and Photography
3 credit(s), max credits 12, 3 completions allowed; prerequisite Junior or senior student.

Instructor: Wolbert, Barbara

Description: In this course on the intersection of visual cultural studies and German and European studies, we will focus on art events and cultural institutions - such as exhibitions and museums - in the context of globalization. We will deal with the representation of race, national, cultural and religious diversity and its representation in the public sphere. In particular, we will concentrate on a variety of forms of expressive culture on the politics of exclusion and inclusion in German art worlds. We will describe the appropriation of concepts such as integration and multiculturalism into political discourses in Germany. Through exhibits of art referred to as "international art," "global art," "ethnic art," "Non-Western art," we will analyze the notion of "otherness" at a particular point in time and critically examine German cultural politics. Thus, we will take a critical view of visual culture, political power and alterity. The course addresses this issue from a diachronic perspective: our discussions will follow a sequence of art exhibition cases from Imperial Germany, the Weimar Republic, Nazi Germany, the Cold War Germany, and Unified Germany. While the selection of catalogs and slides from exhibition sites focuses on the German case, the theoretical readings allow a more general introduction to German studies, cultural studies, and visual studies. You may take this course as an introduction to German cultural politics; it may also serve the interests and needs of students who are seeking to expand their knowledge of German culture and politics. This course aims furthermore at broadening your understanding of the place and role of art in society and raising your awareness of diversity issues and questions of representation. Working not only with texts, but also studying displays on site and dealing with visual images, you will be encouraged to formulate descriptive, critical, and comparative analysis, carefully, develop your own interpretations, and critically make use of the readings.

Style: 50% Lecture, 25% Discussion, 20% Student Presentation, 5% Field Trips.
Grading: 10% mid-term exam, 20% final exam, 40% reports/papers, 15% in-class presentation, 15% class participation.
Exam Format: Mid-term exam: open questions/short answers expected; Final exam: essay form (take-home exam).

GLOS 5993 Directed Studies
1-4 credit(s), max credits 12, 3 completions allowed; prerequisite instructor consent, department consent, college consent.

Instructor: STAFF

Description: Student may contact the instructor or department for information.

GLOS 5994 Directed Research
1-4 credit(s), max credits 12, 3 completions allowed; prerequisite instructor consent, department consent.

Instructor: STAFF

Description: Student may contact the instructor or department for information.
GRAD 5105 Practicum in University Teaching for Nonnative English Speakers
S-N only, 2 credit(s); prereq [5102 or SPEAK score of 50], instr consent ;
Instructor: Rosen, Caroline Frances
Description:

GRAD 5105 Practicum in University Teaching for Nonnative English Speakers
S-N only, 2 credit(s); prereq [5102 or SPEAK score of 50], instr consent ;
Instructor: Jetter, Mary
Description:

GRAD 5105 Practicum in University Teaching for Nonnative English Speakers
S-N only, 2 credit(s); prereq [5102 or SPEAK score of 50], instr consent ;
Instructor: Jetter, Mary
Description:

GRAD 8101 Teaching in Higher Education
OPT No Aud, 3 credit(s);
Instructor: Wingert, Deborah Ann
Description: Student may contact the instructor or department for information.

GRAD 8101 Teaching in Higher Education
OPT No Aud, 3 credit(s);
Instructor: Gonzalez, PhD, Anita Marie
Description: GRAD 8101 is designed to help graduate students and post-doctoral fellows become responsive and reflective teachers. Co-teachers along with course participants will model a variety of active learning strategies and will facilitate discussions addressing educational theory and practice. By combining action and analysis, participants will explore and develop teaching skills that promote learning within a diverse student body across a variety of settings.

GRAD 8101 Teaching in Higher Education
OPT No Aud, 3 credit(s);
Instructor: Ching, Paul
Description: GRAD 8101 is designed to help graduate students and post-doctoral fellows become responsive and reflective teachers. Co-teachers along with course participants will model a variety of active learning strategies and will facilitate discussions addressing educational theory and practice. By combining action and analysis, participants will explore and develop teaching skills that promote learning within a diverse student body across a variety of settings.

GRAD 8101 Teaching in Higher Education
OPT No Aud, 3 credit(s);
Instructor: Petersen, Christina Ingrid
Description: Student may contact the instructor or department for information.

GRAD 8102 Practicum for Future Faculty
S-N only, 3 credit(s); prereq [8101 or equiv], native English speaker or [SPEAK Test score of at least 55/60 or ELP score of 1 from [5102, 5105]];
Instructor: Rozalski, Bill
Description: Student may contact the instructor or department for information.

GDES 1311 Foundations: Drawing and Design in Two and Three Dimensions
A-F only, 4 credit(s); prereq [Apparel design or graphic design or interior design] pre-major credit will not be granted if credit already received for: DHA 1311;
Instructor: STAFF
Description: In this course the formal, perceptual, symbolic and technical aspects of visual communication will be introduced--with the emphasis on drawing. Design elements and principles will be applied within the context of observational drawing, as well as two- and three dimensional design. Design process and creative problem solving will be stressed. We will work in a variety of mediums -- charcoal, conte, white chalk, but the emphasis will be on gaining expertise with the pencil. Subject matter will range from the figure to two-dimensional abstraction projects. You will gain expertise in drawing technique, as well as in composition, visual unity and balance and in visual analysis of drawings.
Style: 20% Lecture, 20% Discussion. 60% studio work
Grading: 10% class participation, 90% other evaluation. studio assignments
Exam Format: Final presentation

GDES 1312 Foundations: Color and Design in Two and Three Dimensions
A-F only, 4 credit(s); prereq [Apparel design or graphic design or interior design] pre-major credit will not be granted if credit already received for: DHA 1312;
Instructor: STAFF
Description: "This design foundations course introduces students to color theory and its application in two and three dimensional design through lectures, demonstrations, extensive studio work and critiques. Emphasis is on developing students' ability to use color effectively in two and three dimensional design applications by studying traditional design elements, gestalt grouping principles, theories of color organization, color and spatial perception, and color interaction." But it is so much more. Intended for (pre) majors in graphic design, clothing design, interior design, and housing; this class has a well-earned reputation as 'the toughest class you'll ever love.' Class time is spent with slide and lecture presentations, studio work, and group and individual critiques. Successful completion requires a significant commitment to time, energy, and resources (supplies run approximately $200.) The result? You will produce a portfolio that is a descriptive explanation and illustration of color and design theory, enhanced with your own creative projects: a physical product of impressive proportions. You will be proud of your work. Most importantly, you will see the world in a whole new light. You'll see color where you didn't see it before and recognize the 'color magic' around you.
Style: 20% Lecture. critique; 60% studio work
Grading: 20% reports/papers, 80% other evaluation. studio designs and exercises

GDES 1315 Foundations: The Graphic Studio
A-F only, 4 credit(s); prereq Graphic design pre-major or instr consent credit will not be granted if credit already received for: DHA 1315;
Instructor: STAFF
Description: This class will provide an overview of the design communication process including creative procedure, terminology, and technology, and will introduce the use of current computer applications. Students will gain skills in digital illustration and page layouts, and image-scanning and manipulation. Graphic design elements of typography, production, color separation, printing process, and photography will also be addressed.
Style: 50% Lecture, 10% Discussion, 40% Laboratory.
Grading: 25% class participation, 50% problem solving, 25% other evaluation. in-class exercises

GDES 2196 Work Experience in Graphic Design
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent ;
Instructor: Hokanson, Brad
Description: Student may contact the instructor or department for information.
GDES 2196 Work Experience in Graphic Design
S-N only, 1-4 credit(s); max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent;
Instructor: Martinson, Barbara Elizabeth
Description: Student may contact the instructor or department for information.

GDES 2196 Work Experience in Graphic Design
S-N only, 1-4 credit(s); max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent;
Instructor: Reed, Michael Lester
Description: Student may contact the instructor or department for information.

GDES 2196 Work Experience in Graphic Design
S-N only, 1-4 credit(s); max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent;
Instructor: Waldron, Carol C
Description: Student may contact the instructor or department for information.

GDES 2196 Work Experience in Graphic Design
S-N only, 1-4 credit(s); max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent;
Instructor: Owens, John Lee
Description: Student may contact the instructor or department for information.

GDES 2196 Work Experience in Graphic Design
S-N only, 1-4 credit(s); max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent;
Instructor: Boyd Brent, James W
Description: Student may contact the instructor or department for information.

GDES 2196 Work Experience in Graphic Design
S-N only, 1-4 credit(s); max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent;
Instructor: McCarthy, Steven J
Description: Student may contact the instructor or department for information.

GDES 2196 Work Experience in Graphic Design
S-N only, 1-4 credit(s); max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent;
Instructor: Jasper, Angela Marie
Description: Student may contact the instructor or department for information.

GDES 2311 Drawing and Illustration
A-F only, 3 credit(s); prereq [1311 or DHA 1311], [1312 or DHA 1312], [[apparel design or graphic design or interior design] pre-major] or instr consent credit will not be granted if credit already received for: DHA 2311;
Instructor: Broden, Lonnie M
Description: Student may contact the instructor or department for information.

GDES 2311 Drawing and Illustration
A-F only, 3 credit(s); prereq [1311 or DHA 1311], [1312 or DHA 1312], [[apparel design or graphic design or interior design] pre-major] or instr consent credit will not be granted if credit already received for: DHA 2311;
Instructor: Owens, John Lee
Description: Student may contact the instructor or department for information.

GDES 2311 Drawing and Illustration
A-F only, 3 credit(s); prereq [1311 or DHA 1311], [1312 or DHA 1312], [[apparel design or graphic design or interior design] pre-major] or instr consent credit will not be granted if credit already received for: DHA 2311;
Instructor: Reed, Michael Lester
Description: Student may contact the instructor or department for information.

GDES 2334 Computer Applications I: Digital Composition for Design
A-F only, 3 credit(s); prereq [1311 or DHA 1311], [1312 or DHA 1312], [1315 or DHA 1315], graphic design major;
Instructor: Chu, Sauman
Description: This is an advanced computer design class that focuses on the integration of design knowledge with Macintosh and Adobe Photoshop and InDesign. Experiences on using these software are required. Additionally, Adobe Flash will also be taught. Emphasis of this class is on producing sophisticated and professional design work as well as broadening students' experience on applying software. A co-operative learning environment is encouraged.
Style: 25% Lecture, 25% Discussion. Studio time
Grading: 5% journal, 5% in-class presentation, 10% class participation, 80% other evaluation. Design projects

GDES 2334 Computer Applications I: Digital Composition for Design
A-F only, 3 credit(s); prereq [1311 or DHA 1311], [1312 or DHA 1312], [1315 or DHA 1315], graphic design major;
Instructor: Carton, Anthony O
Description: Student may contact the instructor or department for information.

GDES 2334 Computer Applications I: Digital Composition for Design
A-F only, 3 credit(s); prereq [1311 or DHA 1311], [1312 or DHA 1312], [1315 or DHA 1315], graphic design major;
Instructor: STAFF
Description: Typographic Design is an introduction to the art of visual communication: the visual realization of a most basic element of communication--the word. The history of typographic forms, principles of composition, and the expressive potential of type will be explored though reading, research, exercises, and design production. Sequential studies will follow the design process: problem-solving through exploration, experimentation, selection, critique, and refinement. Effectiveness of typographic design will be evaluated in terms of legibility, readability, and expression: the direct correlation to gestalt design principles will be evident. Assignments include textbook readings, research from additional sources, analysis and critique of found design, and, primarily, studio design production. Studio assignments will involve both handwork, to train the eye and hand; and digital typographic design and illustration using QuarkXpress and Illustrator. Class sessions will be held in both classrooms and Macintosh studios. This class is for Graphic Design majors who have passed portfolio review only.
Style: 10% Lecture, studio, 30% critique
Grading: 100% other evaluation. Studio design projects including process participation

GDES 2351 Graphic Design I: Text and Image
A-F only, 3 credit(s); prereq [2345 or DHA 2345], graphic design major, pass portfolio review credit will not be granted if credit already received for: DHA 2351;
Instructor: Tank, Angela Marie
Description: Student may contact the instructor or department for information.

GDES 2351 Graphic Design I: Text and Image
A-F only, 3 credit(s); prereq [2345 or DHA 2345], graphic design major, pass portfolio review credit will not be granted if credit already received for: DHA 2351;
Instructor: STAFF
Description: Student may contact the instructor or department for information.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Instructor</th>
<th>Prerequisites</th>
<th>Credits</th>
<th>Max Credits</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>GDES 4160H</td>
<td>Honors Capstone Project</td>
<td>Hokanson, Brad</td>
<td>Graphic design honors</td>
<td>2</td>
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<td>Student may contact the instructor or department for information.</td>
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<tr>
<td>GDES 4160H</td>
<td>Honors Capstone Project</td>
<td>McCarthy, Steven J</td>
<td>Graphic design honors</td>
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<td>Student may contact the instructor or department for information.</td>
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<td>GDES 4160H</td>
<td>Honors Capstone Project</td>
<td>Boyd Brent, James W</td>
<td>Graphic design honors</td>
<td>2</td>
<td>4</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>GDES 4193</td>
<td>Directed Study in Graphic Design</td>
<td>Hokanson, Brad</td>
<td>Undergrad, instr consent</td>
<td>1-4</td>
<td>8</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>GDES 4193</td>
<td>Directed Study in Graphic Design</td>
<td>Waldron, Carol C</td>
<td>Undergrad, instr consent</td>
<td>1-4</td>
<td>8</td>
<td>Student may contact the instructor or department for information.</td>
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</tbody>
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GDES 4193 Directed Study in Graphic Design
A-F only, 1-4 credit(s); max credits 8; prereq Undergrad, instr consent
Instructor: Jasper, Daniel
Description: Student may contact the instructor or department for information.

GDES 4196 Internship in Graphic Design
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq Completion of at least one-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent [added to PS note field, course notes sequence nbr 3]; credit will not be granted if credit already received for: DHA 4196; Credit will not be granted if credit has been received for: ADES 4196;
Instructor: Hokanson, Brad
Description: Student may contact the instructor or department for information.

GDES 4196 Internship in Graphic Design
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq Completion of at least one-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent [added to PS note field, course notes sequence nbr 3]; credit will not be granted if credit already received for: DHA 4196; Credit will not be granted if credit has been received for: ADES 4196;
Instructor: Waldron, Carol C
Description: Student may contact the instructor or department for information.

GDES 4196 Internship in Graphic Design
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq Completion of at least one-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent [added to PS note field, course notes sequence nbr 3]; credit will not be granted if credit already received for: DHA 4196; Credit will not be granted if credit has been received for: ADES 4196;
Instructor: Martinson, Barbara Elizabeth
Description: Student may contact the instructor or department for information.

GDES 4196 Internship in Graphic Design
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq Completion of at least one-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent [added to PS note field, course notes sequence nbr 3]; credit will not be granted if credit already received for: DHA 4196; Credit will not be granted if credit has been received for: ADES 4196;
Instructor: Waldron, Carol C
Description: Student may contact the instructor or department for information.

GDES 4196 Internship in Graphic Design
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq Completion of at least one-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent [added to PS note field, course notes sequence nbr 3]; credit will not be granted if credit already received for: DHA 4196; Credit will not be granted if credit has been received for: ADES 4196;
Instructor: Hokanson, Brad
Description: Student may contact the instructor or department for information.

GDES 4196 Internship in Graphic Design
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq Completion of at least one-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent [added to PS note field, course notes sequence nbr 3]; credit will not be granted if credit already received for: DHA 4196; Credit will not be granted if credit has been received for: ADES 4196;
Instructor: Martinson, Barbara Elizabeth
Description: Student may contact the instructor or department for information.

GDES 4196 Internship in Graphic Design
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq Completion of at least one-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent [added to PS note field, course notes sequence nbr 3]; credit will not be granted if credit already received for: DHA 4196; Credit will not be granted if credit has been received for: ADES 4196;
Instructor: Hokanson, Brad
Description: Student may contact the instructor or department for information.

GDES 4196 Internship in Graphic Design
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq Completion of at least one-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent [added to PS note field, course notes sequence nbr 3]; credit will not be granted if credit already received for: DHA 4196; Credit will not be granted if credit has been received for: ADES 4196;
Instructor: Waldron, Carol C
Description: Student may contact the instructor or department for information.

GDES 4196 Internship in Graphic Design
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq Completion of at least one-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent [added to PS note field, course notes sequence nbr 3]; credit will not be granted if credit already received for: DHA 4196; Credit will not be granted if credit has been received for: ADES 4196;
Instructor: Hokanson, Brad
Description: Student may contact the instructor or department for information.

GDES 4344 Computer Applications II: Design for the Digital Environment
A-F only, 3 credit(s); prereq [2334 or DHA 2334 or instr consent ]; [graphic design major or grad student or instr consent ] credit will not be granted if credit already received for: DHA 4334;
Instructor: Barness, Jessica S
Description: Student may contact the instructor or department for information.

GDES 4345 Advanced Typography
A-F only, 4 credit(s); prereq 2345 or DHA 2345, [graphic design major or grad student or instr consent ] credit will not be granted if credit already received for: DHA 4345;
Instructor: Waldron, Carol C
Description: Advanced Typographic Design is the continued -- and deeper -- exploration of the expressive visual communication through letterforms and words. Both the fundamental legibility of the invisible art and overt expression through type will be addressed. Students will apply fundamentals of design and typography to simple and complex communication objectives, exploring the expressive potential of varied typographic treatments through contrast, manipulation, arrangement, and juxtaposition. There will be a brief foray into the design of letterforms. Various typographic movements will be studied from both formal and historic perspectives. An extended typographic project will be completed. This class is intended for advanced graphic design majors.
Style: 10% Discussion. studio design projects and critique
Grading: 100% other evaluation. studio design project and performance

GDES 4351 Design Process: Photography
A-F only, 3 credit(s); prereq [1311 or DHA 1311], [1312 or DHA 1312], [graphic design major or grad student or instr consent ] credit will not be granted if credit already received for: DHA 4351;
Instructor: Martin, Peter Lynn
Description: This course focuses on the relationship between material design media and the design problem and its most effective solution. Students gain technical skills to take, develop, process, scan, and digitally print photographs. Students also develop design skills by exploring the expressive potential of photographic images, and address issues surrounding manipulation of photographs for design and personal expression. Projects include both image composition and research and analysis. This class is intended primarily for DHA majors who have completed design foundations coursework; students from other majors are welcome as space allows.
Style: 10% Discussion. studio design production and critique
Grading: 10% reports/papers, 90% other evaluation. design projects

GDES 4354 Graphic Design IV: Integrative Campaign
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit(s)</th>
<th>Prerequisites</th>
<th>Instructor</th>
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<tr>
<td>GDES 4355</td>
<td>Graphic Design Portfolio</td>
<td>3</td>
<td>prerequisites: DHA 4354 or DHA 4365, graphic</td>
<td>Pickman, Gregory Hunter</td>
<td>Description: May contact the instructor or department for information.</td>
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<tr>
<td>GDES 4365W</td>
<td>Graphic Design Senior Seminar</td>
<td>3</td>
<td>prerequisites: graphic design major</td>
<td>Huff, Richelle Jayne</td>
<td>Description: May contact the instructor or department for information.</td>
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<td>GDES 5193</td>
<td>Directed Study in Graphic Design</td>
<td>1-4</td>
<td>prerequisites: Jr or sr or grad student</td>
<td>Hokanson, Brad</td>
<td>Description: May contact the instructor or department for information.</td>
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<td>GDES 5341</td>
<td>Interactive Design</td>
<td>3</td>
<td>prerequisites: Graphic design major or instr</td>
<td>Martinson, Barbara Elizabeth</td>
<td>Description: May contact the instructor or department for information.</td>
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<tr>
<td>GDES 5386</td>
<td>Fundamentals of Game Design</td>
<td>3</td>
<td>prerequisites: Graphic design, Jr or grad student</td>
<td>Chu, Sauman</td>
<td>Description: May contact the instructor or department for information.</td>
</tr>
<tr>
<td>GDES 8192</td>
<td>Readings in Graphic Design</td>
<td>1-3</td>
<td>prerequisites: student or instr consent</td>
<td>Hokanson, Brad</td>
<td>Description: May contact the instructor or department for information.</td>
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<td>GDES 8192</td>
<td>Readings in Graphic Design</td>
<td>1-3</td>
<td>prerequisites: student or instr consent</td>
<td>Martinson, Barbara Elizabeth</td>
<td>Description: May contact the instructor or department for information.</td>
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<td>GDES 8192</td>
<td>Readings in Graphic Design</td>
<td>1-3</td>
<td>prerequisites: student or instr consent</td>
<td>Waldron, Carol C</td>
<td>Description: May contact the instructor or department for information.</td>
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<td>Readings in Graphic Design</td>
<td>1-3</td>
<td>prerequisites: student or instr consent</td>
<td>Chu, Sauman</td>
<td>Description: May contact the instructor or department for information.</td>
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<td>Readings in Graphic Design</td>
<td>1-3</td>
<td>prerequisites: student or instr consent</td>
<td>Boyd Brent, James W</td>
<td>Description: May contact the instructor or department for information.</td>
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GDES 8192 Readings in Graphic Design
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
prereq instr consent;
Instructor: McCarthy, Steven J
Description: Student may contact the instructor or department for information.

GDES 8192 Readings in Graphic Design
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
prereq instr consent;
Instructor: Jasper, Daniel
Description: Student may contact the instructor or department for information.

GDES 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
prereq instr consent;
Instructor: Hokanson, Brad
Description: Student may contact the instructor or department for information.

GDES 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
prereq instr consent;
Instructor: Martinson, Barbara Elizabeth
Description: Student may contact the instructor or department for information.

GDES 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
prereq instr consent;
Instructor: Waldron, Carol C
Description: Student may contact the instructor or department for information.

GDES 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
prereq instr consent;
Instructor: Boyd Brent, James W
Description: Student may contact the instructor or department for information.

GDES 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
prereq instr consent;
Instructor: McCarthy, Steven J
Description: Student may contact the instructor or department for information.

GDES 8222 Plan B Master's Project
S-N only, 3 credit(s); prereq [Design or DHA master's student], instr consent;
Instructor: Hokanson, Brad
Description: Student may contact the instructor or department for information.

GDES 8222 Plan B Master's Project
S-N only, 3 credit(s); prereq [Design or DHA master's student], instr consent;
Instructor: Waldron, Carol C
Description: Student may contact the instructor or department for information.

GDES 8222 Plan B Master's Project
S-N only, 3 credit(s); prereq [Design or DHA master's student], instr consent;
Instructor: McCarthy, Steven J
Description: Student may contact the instructor or department for information.

GDES 8222 Plan B Master's Project
S-N only, 3 credit(s); prereq [Design or DHA master's student], instr consent;
Instructor: Boyd Brent, James W
Description: Student may contact the instructor or department for information.

GDES 8222 Plan B Master's Project
S-N only, 3 credit(s); prereq [Design or DHA master's student], instr consent;
Instructor: McCarthy, Steven J
Description: Student may contact the instructor or department for information.

GDES 8222 Plan B Master's Project
S-N only, 3 credit(s); prereq [Design or DHA master's student], instr consent;
Instructor: Martinson, Barbara Elizabeth
Description: Student may contact the instructor or department for information.

GDES 8890 MFA Creative Thesis
A-F only, 6 credit(s), max credits 12; prereq Completed coursework requirements for MFA in DHA w/multimedia emphasis, instr consent credit will not be granted if credit already received for: DHA 8990;
Instructor: Hokanson, Brad
Description: Student may contact the instructor or department for information.

GDES 8890 MFA Creative Thesis
A-F only, 6 credit(s), max credits 12; prereq Completed coursework requirements for MFA in DHA w/multimedia emphasis, instr consent credit will not be granted if credit already received for: DHA 8990;
Instructor: McCarthy, Steven J
Description: Student may contact the instructor or department for information.

GDES 8890 MFA Creative Thesis
A-F only, 6 credit(s), max credits 12; prereq Completed coursework requirements for MFA in DHA w/multimedia emphasis, instr consent credit will not be granted if credit already received for: DHA 8990;
Instructor: Martinson, Barbara Elizabeth
Description: Student may contact the instructor or department for information.

GDES 8890 MFA Creative Thesis
A-F only, 6 credit(s), max credits 12; prereq Completed coursework requirements for MFA in DHA w/multimedia emphasis, instr consent credit will not be granted if credit already received for: DHA 8990;
Instructor: Hokanson, Brad
Description: Student may contact the instructor or department for information.

GDES 8890 MFA Creative Thesis
A-F only, 6 credit(s), max credits 12; prereq Completed coursework requirements for MFA in DHA w/multimedia emphasis, instr consent credit will not be granted if credit already received for: DHA 8990;
Instructor: Waldron, Carol C
Description: Student may contact the instructor or department for information.

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GDES 8990 MFA Creative Thesis
A-F only, 6 credit(s), max credits 12; prereq Completed coursework requirements for MFA in DHA w/multimedia emphasis, instr consent credit will not be granted if credit already received for: DHA 8990;
Instructor: Chu, Sauman
Description: Student may contact the instructor or department for information.

GDES 8990 MFA Creative Thesis
A-F only, 6 credit(s), max credits 12; prereq Completed coursework requirements for MFA in DHA w/multimedia emphasis, instr consent credit will not be granted if credit already received for: DHA 8990;
Instructor: Boyd, Brent; James W
Description: Student may contact the instructor or department for information.

GDES 8990 MFA Creative Thesis
A-F only, 6 credit(s), max credits 12; prereq Completed coursework requirements for MFA in DHA w/multimedia emphasis, instr consent credit will not be granted if credit already received for: DHA 8990;
Instructor: McCarthy, Steven J
Description: Student may contact the instructor or department for information.

GDES 8990 MFA Creative Thesis
A-F only, 6 credit(s), max credits 12; prereq Completed coursework requirements for MFA in DHA w/multimedia emphasis, instr consent credit will not be granted if credit already received for: DHA 8990;
Instructor: Jasper, Daniel
Description: Student may contact the instructor or department for information.

GREN 1001 Beginning Classical Greek I
5 credit(s);
Instructor: STAFF
Description: Poetry, history, religion, medicine, philosophy, drama, political science, biology, literary criticism, astronomy, rhetoric, mythology, geography... Whether you want to read Homer or Hippocrates, Aristotle or Aristophanes, Paul or Plato, Greek 1001-1002 is the place to start. In this class you will learn the elements of classical Attic Greek, the dialect spoken and written in Athens during the fifth and fourth centuries BC: a language of tragedy, comedy, oratory, history, and philosophy. With a knowledge of the basic grammar and vocabulary of Attic, you can later go on to read the epics of Homer, the letters of Paul, the comedies of Aristophanes, or whatever you'd like from texts spanning 1200 years of history. There are no prerequisites for this course, except for an interest in the ancient world.
Style: 50% Lecture. recitation
Exam Format: translation, grammatical analysis

HINF 5430 Health Informatics I
A-F only, 4 credit(s);
Instructor: Gatewood, PhD, Lael Cranmer
Description: Student may contact the instructor or department for information.

HINF 5436 Seminar
S-N only, 1 credit(s);
Instructor: Speedie, Stuart M
Description: Student may contact the instructor or department for information.

HINF 5494 Topics in Health Informatics
1-6 credit(s), max credits 6, 1 completion allowed; prereq instr consent;
Instructor: Adam, Terrence Joseph
Description: Student may contact the instructor or department for information.

HINF 5496 Internship in Health Informatics
S-N only, 1-6 credit(s), max credits 18, 6 completions allowed; prereq enrollment in a grad program in Department of Classical/Near Eastern Studies;
Instructor: Sheets, George A
Description: Student may contact the instructor or department for information.

HINF 5499 Capstone Project for the Masters of Health Informatics
A-F only, 3 credit(s); prereq [5430, 5431] or instr consent, MH student;
Instructor: Speedie, Stuart M
Description: Student may contact the instructor or department for information.

HINF 5501 US Health Care System: Information Challenges in Clinical Care
S-N only, 0-1 credit(s), max credits 1, 1 completion allowed; prereq hilth informatics student or instr consent;
Instructor: Adam, Terrence Joseph

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Description: Student may contact the instructor or department for information.

HINF 5510 Applied Health Care Databases: Database Principles and Data Evaluation
A-F only, 3 credit(s); prereq HINF student or grad student or instr consent ;
Instructor: Pieczkiewicz PhD, David Sean
Description: Student may contact the instructor or department for information.

HINF 8446 Professional Studies in Health Informatics
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed; prereq 5431, PUBH 5452 or instr consent, grad hth inf major;
Instructor: Gatewood PhD, Laeli Crammer
Description: Student may contact the instructor or department for information.

Health Systems Management
20 Classroom Office Building

HSM 4561 Health Care Administration and Management
A-F only, 3 credit(s); prereq 45 cr;
Instructor: Henry, William Floyd
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid information. This course introduces managing as a process in health care organizations. Its focus is on "managing" (a verb) rather than "management" (a noun), because I believe management is an active process, not a static state. Moreover, in complex organizations, such as health care delivery systems, managing doesn’t just involve "the managers"; it is carried out by everyone in the organization. So this course is really about management, in, rather than of, health care organizations. In this course, you’ll acquire knowledge and skills in the organizational and managerial aspects of health care. We will apply behavioral and organizational theory and management principles to health care settings. These principles will include organizational models, supervision, employee evaluation, problem solving, productivity management, and group leadership.
Style: 100% Web Based.

Hebrew
245 Nicholson Hall

HEBR 1001 Beginning Hebrew I
5 credit(s); Credit will not be granted if credit has been received for: HEBR 4001;
Instructor: Schneller, Renana Segal
Description: Modern Israeli Hebrew seeks to serve several kinds of students. Typically, students in this course present a wide variety of backgrounds and interests, which include Jewish, or Israeli cultural studies, archaeology, linguistics, travel or work in Israel, and biblical studies. This is a course for complete beginners. You will learn basic listening, reading, and writing skills with stress on proficiency in communication. Cultural materials are incorporated. The course serves as a good base for subsequent work in biblical Hebrew. This difference between this course and Hebr 1104, Biblical Hebrew, is that this course has a spoken, conversation component and prepares students to read texts without the diacritic marks. (This reading skill is necessary for those interested in reading Hebrew journal articles and post-biblical Hebrew commentaries.) The pronunciation of Hebrew taught will be the same in both courses.
Style: 50% Lecture, 50% Discussion. audio/video tapes, games, activities
Grading: 20% mid exam, 25% final exam, 20% reports/papers, 25% quizzes, 10% class participation.
Exam Format: multiple choice and essay

HEBR 3011 Intermediate Hebrew I
5 credit(s); prereq Grade of at least [C- or S] in [1002 or 4002] or instr consent ; Credit will not be granted if credit has been received for: HEBR 4011;
Instructor: Schneller, Renana Segal
Description: This course assumes Hebr 1001-2 or other equivalent language study. It leads to the satisfaction of the CLA Language Requirement in: 1) listening comprehension, 2) speaking, 3) reading, 4) writing. The course materials and activities are designed to help students gain the skills necessary in each of these areas. We recognize that you may well have forgotten some of the skills acquired and the "rust" will have to be removed. There is a rapid review of fundamentals followed by a selection of dialogues designed to serve as a bridge between 1st and 2nd year Hebrew. Simple selections from Modern Israeli prose, newspaper, and the arts from the transition to written Israeli Hebrew. T.V. news and films are added as your ability increases. Grammatical skills and writing will be honed through short compositions and a textbook manual. Text: "Hebrew from Scratch" part II
Style: 50% Lecture, 50% Discussion.
Grading: 20% mid exam, 25% final exam, 20% reports/papers, 25% quizzes, 10% class participation.
Exam Format: written and oral responses

HEBR 3951W Major Project
4 credit(s); prereq [Hebr major, three 3xxx Hebrew courses], instr consent, dept consent; Meets CLE req of Writing INTENSIVE;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

HEBR 3980 Directed Instruction
1-4 credit(s), max credits 4, 1 completion allowed; prereq college consent ;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

HEBR 3993 Directed Studies
1-4 credit(s), max credits 4, 1 completion allowed; prereq instr consent ;
Instructor: Schneller, Renana Segal
Description: Student may contact the instructor or department for information.

HEBR 4001 Beginning Hebrew I
3 credit(s); prereq grad student; Credit will not be granted if credit has been received for: HEBR 1001;
Instructor: Schneller, Renana Segal
Description: Modern Israeli Hebrew seeks to serve several kinds of students. Typically, students in this course present a wide variety of backgrounds and interests, which include Jewish, or Israeli cultural studies, archaeology, linguistics, travel or work in Israel, and biblical studies. This is a course for complete beginners. You will learn basic listening, speaking, reading and writing skills with stress on proficiency in communication. Cultural materials are incorporated. The course serves as a good base for subsequent work in biblical Hebrew. The difference between this course and HEBR 1104, Biblical Hebrew, is that this course has a spoken, conversation component and prepares students to read texts without the diacritic marks. (This reading skill is necessary for those interested in reading Hebrew journal articles and post-biblical Hebrew commentaries.) The pronunciation of Hebrew taught will be the same in both courses.

HEBR 4011 Intermediate Hebrew I
3 credit(s); prereq Grade of at least [C- or S] in [1002 or 4002] or instr consent ; Credit will not be granted if credit has been received for: HEBR 3011;

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HNUR 4003 Intermediate Hindi and Urdu
3 credit(s); prereq 1102, 4002 credit will not be granted if credit already received for HNDI 3131/4003 or URDU 3131/4003; Credit will not be granted if credit has been received for: HNUR 3101;
Instructor: Bazaz, Abir Bashir
Description: Student may contact the instructor or department for information.

HIST 1000W Visions of the Past: Thematic Approaches to Understanding History: History of War
0 credit(s), max credits 8; prereq Fr or soph or fewer than 60 cr 1000W and 3000W-level of the same sect/version of Hist 1000W/3000W shall be considered equiv; students may not register for Hist 3000W when the Hist 1000W version was successfully completed.; Meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;
Instructor: Isrett, Christopher Mills
Description: This course examines how war and society have shaped each other since Neolithic times. Historically, war has been a standard tool for organizing societies, settling disputes, and securing resources. The means and meaning of war have changed in important ways over time and we can see very different historical outcomes across different societies. The course begins with our basic understanding of war, asking what it is, has it always been the same, and how we might approach it historically. Much of the course will be spent examining evidence of past war making and the societies that made war, beginning with the earliest archeological evidence as well as evidence from primatologists and anthropology, and ending with war today. In addition to having a long historical sweep, we will adopt a broad and historically comparative approach. We examine differences in war making across many societies in Europe, Asia, the Americas and Africa into the modern era. We examine what meaning different societies have brought to war, and how war has affected these societies. We highlight the comparative dimension in relation to culture.

HIST 1000W Visions of the Past: Thematic Approaches to Understanding History: Western Civilization
0 credit(s), max credits 8; prereq Fr or soph or fewer than 60 cr 1000W and 3000W-level of the same sect/version of Hist 1000W/3000W shall be considered equiv; students may not register for Hist 3000W when the Hist 1000W version was successfully completed.; Meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;
Instructor: Shank, JB
Description: This course examines how war and society have shaped each other since Neolithic times. Historically, war has been a standard tool for organizing societies, settling disputes, and securing resources. The means and meaning of war have changed in important ways over time and we can see very different historical outcomes across different societies. The course begins with our basic understanding of war, asking what it is, has it always been the same, and how we might approach it historically. Much of the course will be spent examining evidence of past war making and the societies that made war, beginning with the earliest archeological evidence as well as evidence from primatologists and anthropology, and ending with war today. In addition to having a long historical sweep, we will adopt a broad and historically comparative approach. We examine differences in war making across many societies in Europe, Asia, the Americas and Africa into the modern era. We examine what meaning different societies have brought to war, and how war has affected these societies. We highlight the comparative dimension in relation to culture.
Understanding History: Twin Cities History

4 credit(s), max credits 8; prereq Fr or soph or fewer than 60 cr 1000W and 3000W-level of the same sect/version of Hist 1000W/3000W shall be considered equiv; students may not register for Hist 3000W when the Hist 1000W version was successfully completed.; Meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;

Instructor: Norling, Lisa A

Description: This writing intensive survey course will introduce undergraduates to major themes in the history of the United States from the colonial period through the Civil War and Reconstruction. Students will examine and evaluate the dramatic changes and persistent continuities that shaped this formative period of American history. Drawing upon the insights and methods of social, political, and intellectual history, the class lectures and discussion sections will explore a range of topics including European conquest and colonization; Native American responses; revolution and national expansion; slavery, race, and ethnicity; religion and reform movements; gender roles and labor relations. This class meets the CLE requirements for Cultural Diversity (theme), Historical Perspectives (core), and Writing Intensive.

Style: 50% Lecture, 50% Discussion.

Grading: 20% mid exam, 20% final exam, 30% reports/papers, 30% class participation.

Exam Format: short identifications, essay

HIST 1012W The Age of Global Contact

4 credit(s); prereq Fr or soph or [[jr or sr], non-hist major]; Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;

Instructor: Gabaccia, Donna R

Description: This class surveys world history from about 1500. Although we often assume that globalization is a new phenomenon made possible by jet planes and cell phones, in fact, the rise of global interaction has a history dating back at least to Columbus's voyage in 1492. We will examine the historical growth -- and decline -- of globalization by following the movements of people, goods, and ideas. The course is designed for majors and non-majors alike. It will introduce students to how historians understand the past and will teach important analytical skills. Writing will be emphasized in the discussion sections. The course fulfills lower-division writing intensive requirements.

Style: 75% Lecture, 25% Discussion.

Grading: 30% final exam, 10% quizzes, 50% written homework, 10% in-class presentation.

Exam Format: Essay

HIST 1015W Globalization: Issues and Challenges

A-F only, 4 credit(s); prereq Fr or soph or [[jr or sr], non-hist major]; Credit will not be granted if credit has been received for: GLOS 1015W; Meets CLE req of Global Perspectives; meets CLE req of Writing Intensive;

Instructor: Farmer, Edward L

Description: This class is an ambitious and demanding course designed as an introduction to global history in the last fifty years. The course will provide you with a framework for thinking about the recent past, world geography, and some general trends. The course is organized comparatively, and will emphasize selected "cases" in Asia (The People's Republic of China and the Republic of China), Africa (South Africa and Mozambique) and Latin America (Cuba and Guatemala). Throughout the course we will not only attempt to understand the big picture of global history (East West rivalry in the Cold War, the North South division in development, global ecology and economy) but also how changes have affected people's everyday lives. We do this through the concepts of livelihood and identity that reveal the impact of national and international forces at the personal level. We will seek out the "voices" of individuals by reading short stories and biographical accounts.

Style: 50% Lecture, 40% Discussion. Peer Review of Writing.

Grading: 25% mid exam, 20% final exam, 30% reports/papers, 25% class participation.

Exam Format: Identification 20%; Essay 80%

HIST 1031W Europe and the World: Expansion, Encounter, and Exchange to 1500

4 credit(s); prereq [Fr or soph or [jr or sr], non-hist major]; Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;

Instructor: Matar, Nabil I

Description: Student may contact the instructor or department for information.

HIST 1301W Authority and Rebellion: American History to 1865

4 credit(s); prereq Fr or soph or [jr or sr], non-hist major]; Credit will not be granted if credit has been received for: HIST 1301V; Meets CLE req of Diversity and Soc Justice US; meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;

Instructor: Shank, JB

Description: This course examines whether war and society have shaped each other since the Neolithic times. Historically, war has been a standard tool for organizing societies, settling disputes, and securing resources. The means and meaning of war have changed in important ways over time and we can see very different historical outcomes across different societies. The course begins with our basic understanding of war, asking what it is, has it always been the same, and how we might approach it historically. Much of the course will be spent examining evidence of past war making and the societies that made war, beginning with the earliest archeological evidence as well as evidence from primatologists and anthropology, and ending with war today. In addition to having a long historical sweep, we will adopt a broad and historically comparative approach. We examine differences in war making across many societies in Europe, Asia, the Americas and Africa into the modern era. We examine what meaning different societies have brought to war, and how war has affected these societies. We highlight the comparative dimension in relation to culture.

HIST 3000W Visions of the Past: Thematic Approaches to Understanding History: Western Civilization

0 credit(s), max credits 8; prereq Jr or sr or at least 60 cr; Meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;

Instructor: Isett, Christopher Mills

Description: This course examines how war and society have shaped each other since the Neolithic times. Historically, war has been a standard tool for organizing societies, settling disputes, and securing resources. The means and meaning of war have changed in important ways over time and we can see very different historical outcomes across different societies. The course begins with our basic understanding of war, asking what it is, has it always been the same, and how we might approach it historically. Much of the course will be spent examining evidence of past war making and the societies that made war, beginning with the earliest archeological evidence as well as evidence from primatologists and anthropology, and ending with war today. In addition to having a long historical sweep, we will adopt a broad and historically comparative approach. We examine differences in war making across many societies in Europe, Asia, the Americas and Africa into the modern era. We examine what meaning different societies have brought to war, and how war has affected these societies. We highlight the comparative dimension in relation to culture.
HIST 3000W Visions of the Past: Thematic Approaches to Understanding History: Twin Cities History
4 credit(s), max credits 8; prereq Jr or sr or at least 60 cr; Meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;
Instructor: Chang, David Anthony
Description: Discover the past and present of the Twin Cities region, its diverse populations and its economic, political and social development through multimedia presentations and visits to neighborhoods, museums and historic sites. Topics include milling, Native American history, Prohibition and crime, labor, immigration, suburbanization, & the music scene.

HIST 3010W Historical Research Seminar: Utopian Visions in the Modern Era
A-F only, 3 credit(s), max credits 12, 4 completions allowed; prereq One 1xxx or 3xxx introductory survey course or instr consent Students may not repeat for credit the same section (or topic); Meets CLE req of Writing Intensive; Instructor: Isett, Christopher Mills
Description: Perfect worlds have been present in the imagination since ancient times. People the world over have imagined what it would be like to live without pain or suffering, violence or hardship, poverty or fear. This course will examine a selection of both the ideas and practices of those who thought about and worked toward ‘better’ societies and ‘utopias.’? The course has three areas of focus. First, we look at how writers crafted ideal worlds, what they hoped such works would do, and how these works were received. We will read works from across the political spectrum and time from Thomas Moore to Adam Smith, Bentham, Marx, and Tolstoy. Second, we will examine intentional and designed communities such as appeared in the early American religious colonies, in the Paris Commune of 1871, the dramatic 20th century revolutions in Russia and China, and in the counter-culture movements of the post-war era. Third, we will use media (film, art, literature, architecture and design) to see how utopian plans, ideas, and views remain a part of the contemporary landscape as objects of both ridicule and longing. Throughout the course we will be attuned to how these visions travelled, how actors in different cultures sought to use certain utopian ideas in their own plans to bring about a perfect society.

HIST 3010W Historical Research Seminar: Genocide in Yugoslavia in the Modern Age
A-F only, 3 credit(s), max credits 12, 4 completions allowed; prereq One 1xxx or 3xxx introductory survey course or instr consent Students may not repeat for credit the same section (or topic); Meets CLE req of Writing Intensive; Instructor: Emmert, Tom
Description: Ethnic conflict and ethnic cleansing have been the most tragic elements of life in the Balkans ever since the rapid demise of the Ottoman Empire and the rise of nationalism in the nineteenth century. Certainly the most intense manifestations of such conflict occurred in Yugoslavia during World War II and again in the decade after 1991 as Yugoslavia disintegrated. The ethnic cleansing which accompanied these conflicts was arguably genocidal in its intent, scope, and results. This course will examine the history of ethnic relations and conflict in the Yugoslav lands during the twentieth century with a particular emphasis on the most recent episodes cited above. A central focus will be the role of Serbia in the wars at the end of the twentieth century and the continuing controversy over the genocidal character of its actions. The course is structured as a seminar with common readings and lively discussion.
Style: 30% Lecture, 70% Discussion.
Grading: 50% reports/papers, 25% reflection paper, 25% class participation.

HIST 3010W Historical Research Seminar: Researching Japan
A-F only, 3 credit(s), max credits 12, 4 completions allowed; prereq One 1xxx or 3xxx introductory survey course or instr consent Students may not repeat for credit the same section (or topic); Meets CLE req of Writing Intensive; Instructor: Mizuno, Hiromi
Description: Did you know that you can write a high-quality research paper on Japan by using English-language materials? This course is for those who are interested in conducting research on a topic related to Japan and the Japanese empire (such as colonial Korea and Taiwan) for a term paper, a senior paper, or your own enjoyment. No Japanese language is required; in fact, the main purpose of the course is to introduce collections of primary materials (in our libraries and online) in English from the past and the present. Those who want to incorporate Japanese-language materials will have a chance to do so as well. Another purpose of the course is to learn how to do research and write a research paper. Students will do a pilot research project (pre-arranged by the instructor) at the beginning, and conduct his/her own research project in the latter half of the semester. The course is in a seminar style, with many hands-on mini assignments that guide you step by step to complete a short research paper by the end of the course. It would work best if you take this course before senior paper writing, but it can be taken in conjunction with senior paper writing. Please consult with the instructor.
Style: 20% Lecture, 30% Discussion, 30% Small Group Activities, 10% Field Trips, 10% Web Based. Archive visits, computer lab demonstrations, etc.
Grading: 30% midterm exam, 30% final exam, 15% reports/papers, 15% in-class presentation.
Exam Format: research paper

HIST 3051 Ancient Civilization: Near East and Egypt
3 credit(s); Meets CLE req of Historical Perspectives;
Instructor: von Dassow, John
Description: From peasants to pharaohs, potsherds to pyramids, promissory notes to poetry, the societies of the ancient Near East include humble and proud, mundane and transcendent, and everything in between. For they are us, just long ago and far away. What does the phrase “ancient Near East” denote? This oversize umbrella term encompasses the lands of Southwest Asia and Northeast Africa: Mesopotamia, Iran, Anatolia, the Levant, Egypt, and neighboring regions, from the Neolithic (beginning c. 9000 BCE) through the Hellenistic period (roughly the last three centuries BCE). Over these nine millennia, the peoples of the Near East developed agriculture, writing, and monotheism, to name only a few inventions of lasting significance. Their most famous achievements are the monuments of kings like Cheops, Midas, and Nebuchadnezzar, but these should not overshadow their less often celebrated social and cultural accomplishments, such as the articulation of systems of justice and ethics ancestral to our own. This survey course will highlight some of the most important technological developments, communities, and literary works of the ancient Near East, within the framework of a broad historical overview. The course will emphasize the construction of knowledge about past cultures on the basis of the texts and artifacts produced by those cultures. This course meets the LE Historical Perspectives core requirement.
Style: 75% Lecture, 25% Discussion.
Grading: 20% final exam, 40% reports/papers, 20% quizzes, 20% class participation.
Exam Format: Essay and identifications/definitions

HIST 3052 Ancient Civilization: Greece
3 credit(s);
Instructor: Evans, John Carl
Description: For a syllabus, please visit www.tc.umn.edu/~evans002/.
Style: 100% Lecture.
Grading: 33% midterm exam, 67% final exam.
Exam Format: take-home essay

HIST 3053 Ancient Civilization: Rome
3 credit(s); Meets CLE req of Historical Perspectives;
Instructor: Gallia, Andrew B
Description: This course provides a general introduction to the broad sweep of Roman history, from the emergence of their civilization, through the growth and conquest of an enormous (and remarkably stable) empire, to the break-up and transformation of the western empire in the fourth century of our

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era. We will look at the cultural underpinnings of Roman power as well as its inner workings in order to get some sense of what it meant to live under Roman rule.

**Style:** 80% Lecture, 10% Discussion, 10% Small Group Activities.

**Grading:** 35% final exam, 25% reports/papers, 30% quizzes, 10% class participation.

**HIST 3101 Introduction to Medieval History**
3 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives;

**Instructor:** Vann Sprecher, Tiffany D.

**Description:** Student may contact the instructor or department for information.

**HIST 3151W British History to the 17th Century**
4 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;

**Instructor:** Mummey, Kevin Dean

**Description:** Student may contact the instructor or department for information.

**HIST 3347 Women in Early and Victorian America: 1600-1890**
3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Historical Perspectives;

**Instructor:** Norling, Lisa A

**Description:** Witches, witches, goodwives and warrior women! Introduction to all sorts of Early American women -- and the men in their lives, too -- and the powerful dynamics of gender and race in American history, 1600-1880. For any student: no background knowledge necessary. Topics include women's involvement in -- and the impact on women of -- European colonization in the Americas and the dispossession of native peoples, slavery, Revolution and nation-building, social reform, economic and technological change, westward expansion and Civil War, and transformations in politics and law, education, family life, gender roles, and sexuality. Course organized primarily as lecture with occasional films, large-group student discussion, in-class exercises. Average of 60-80 pages of reading per week, three short take-home essays, two exams.

**Style:** 80% Lecture, 20% Discussion.

**Grading:** 15% mid exam, 25% final exam, 50% reports/papers, 15% quizzes.

**Exam Format:** short identification, essay

**HIST 3401W Early Latin America to 1825**
A-F only, 4 credit(s); Credit will not be granted if credit has been received for: LAS 3401W; Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives;

**Instructor:** Chambers, Sarah C

**Description:** In 1519, Spaniard Hernan Cortes entered the dazzling capital city of the Mexico (Aztec) empire; what happened next depends upon whose versions of events you read. European accounts emphasize his daring capture of emperor Moctezuma and his rapid domination of central Mexico by the use of his wits and superior technology. Native accounts reveal that the capture of Moctezuma backfired, leading to a lengthy and heroic defense of the island city. Regardless of the telling, such encounters and struggles set the stage for European rule of the Americas for the next three centuries. This course begins with pre-contact Native American societies, but primarily explores the historical processes of colonialism in Latin America (especially Mexico, Brazil and Peru) between 1492 and 1825. We will study both the economic, religious, and administrative systems put in place by the Europeans, and the varied responses of indigenous peoples, Africans, slaves, racially mixed town dwellers, and women. We will learn to analyze primary documents from the period (such as the competing accounts of the conquest of Mexico) and read life stories as well as historical narratives. All students register for a discussion section. If you would like to practice your Spanish, sign up for the FLAC Section 5, in which you can read and discuss documents in the original Spanish. (Spanish majors: you can count this as your one degree course outside your department under the new rules).

**Style:** 65% Lecture, 35% Discussion.

**Grading:** 20% final exam, 50% reports/papers, 15% quizzes, 15% class participation.

**Exam Format:** i.d. terms and short essays

**HIST 3417 Food in History**
3 credit(s); Meets CLE req of Historical Perspectives;

**Instructor:** Pilcher, Jeffrey Michael

**Description:** Modern society is fixated on food. When we're not watching celebrity chefs on TV, we're worrying about E. coli in our peanuts or the obesity epidemic. And we have it easy, historically speaking. Our ancestors were obsessed with the basic problem of avoiding starvation. This course is intended to help understand the significance of food in society from the earliest gatherers and hunters to the present with three main areas of focus. First, the class will examine the historical antecedents to the contemporary globalization of foods as well as the ways in which people have resisted globalization. Second, we will discuss how foods have helped to create and reinforce hierarchies in societies around the world. A third major theme will be the modern transformation of global diets caused by industrialization, colonialism, and proletarian migrations. The course will conclude by examining contemporary issues including the global spread of the fast food, biotechnology and the green revolution as well as body image and fusion cuisine.

**Style:** 70% Lecture, 30% Discussion.

**Grading:** 15% mid exam, 25% final exam, 60% written homework.

**Exam Format:** Essay

**HIST 3425 History of Modern Mexico**
3 credit(s); Credit will not be granted if credit has been received for: CHIC 3425;

**Instructor:** McNamara, Patrick J

**Description:** Recent events in Mexico?the ongoing ?Zapatista? rebellion in Mexico?s southern state of Chiapas, the North American Free Trade Agreement, the election of Vicente Fox as president?signal an important shift in modern Mexico. And yet much of Mexican society and politics seem inexorably tied more to the past than to the future. In order to understand this anomaly, that is, in order to explain what we mean by ?modern? Mexico, this course will offer an in-depth analysis of 19th and 20th century Mexican history. The organization of the course assumes no prior background in Mexican history. Although we will begin most sessions with a chronological discussion of relevant changes over time, emphasis will be placed upon certain themes and trends with respect to economic, social, and cultural development and change. We will be particularly interested in the patterns of conflict and negotiation that shaped Mexico?s history and emphasis will be given throughout the course to the ways in which ?everyday people? participated in and influenced the political events of their times. In addition, we will focus on important regional, class, ethnic, and gender differences and identities that have figured prominently in Mexico?s history, and to the politics of writing, telling, and sharing historical narratives. The course will rely on lectures, discussions, and films. We will read extensively in historical studies, primary documents, and Mexican literature.

**Style:** 60% Lecture, 5% Film/Video, 15% Discussion, 10% Small Group Activities.

**HIST 3429 Latin American History in Film and Text**
3 credit(s); Credit will not be granted if credit has been received for: LAS 3429; Meets CLE req of Arts/Humanities; meets CLE req of Global Perspectives;

**Instructor:** Chambers, Sarah C

**Description:** In the past two decades, there has been a creative explosion of films and documentaries representing women in Latin America, past and present. This course invites you to study women in history through the lens of film. We will explore women's roles in the green revolution as well as body image and fusion cuisine.

**Exam Format:** i.d. terms and short essays
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hub of activity, especially under the Sassanids and, later, under the Mongols. Even after the discovery of the sea routes made the movement of goods by caravans less profitable, Sufis and merchants continued to trade for creating a better world is as promising a notion today as it was real in medieval times. The course is devised to acquaint students with the dynamics of the Silk Road, both in medieval and contemporary times. It equips them with the necessary information to understand, interpret, and accept ideas and actions that, on the surface, might appear alien and often unacceptable. The course emphasizes the contributions of the cultures of Central Asia, Afghanistan, and Iran to world civilization.

**Style:** 60% Lecture, 10% Film/Video, 10% Discussion, 20% Student Presentation.

**Grading:** 51% reports/papers, 36% quizzes, 3% attendance, 10% in-class presentation.

**Exam Format:** essay

**HIST 3613 History of the Crusades**

3 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives;

**Instructor:** Reyerson,Kathryn L

**Description:** Taking a wider view, the Crusades make up one of the most fascinating episodes in the history of the Middle Ages. Our primary aim in this class will be to study the crusading phenomenon in its medieval context by engaging with the original documentary remains of the period. What motivated medieval European men and women to set out on the conquest of a land thousands of miles away, about which they knew very little? How did the papacy, as head of the Catholic Church, come to promote violence against the Muslim residents of that land as not merely justifiable, but as positively meritorious, as deserving of a great spiritual reward? How did the Muslim and also Jewish communities who were the primary targets of this violence respond to it, and how did the contact among Christians, Muslims, and Jews which the Crusades made possible transform relations among these groups, the three major monotheistic religions of the West? While focusing on the Crusades as an aspect of medieval history, we will also consider some of the larger questions raised by the history of these expeditions. What is the relationship between violence and religion? Does it differ in the Christian, Muslim, and Jewish traditions? What is the legacy of the Crusades? Did they pave the way for the subsequent Western colonial ventures that eventually led to Western domination of much of the non-Western world? Did they set the stage for major conflicts in the Middle East?

**Style:** 70% Lecture, 30% Discussion.

**Grading:** 20% mid exam, 30% final exam, 30% reports/papers, 20% class participation.

**Exam Format:** essay exams

**HIST 3618 The Dark Ages Illumined: Medieval Europe to 1050**

3 credit(s);

**Instructor:** Bachrach,Bernard S

**Description:** Student may contact the instructor or department for information.

**HIST 3637 Modern Russia: From Peter the Great to the Present**

3 credit(s);

**Instructor:** Stavrou,Theofanis G

**Description:** Student may contact the instructor or department for information.

**HIST 3652 Early Modern Britain**

3 credit(s);

**Instructor:** Watkins,John

**Description:** The good people of London assembled for the annual celebration of Queen Elizabeth's Accession Day. The highlight of the festivities was a giant papier-mache statue of the Pope, this belly filled with live cats. After long speeches recalling how Elizabeth saved the country from the Pope and the King of Spain, the organizers set the statue on fire. While the burning cat squealed most horribly, the crowd asked, "What was the language of the pope and the devil in dialogue?" The violence of Tudor-Stuart Britain haunts us even to this day. Each year brings us a new movie, television series, or popular novel recalling the Henry VIII's beheaded wives; Sir Thomas More; Mary, Queen of Scots; the 300 Protestant martyrs burned by Mary I; the priests hung, drawn, and quartered by the Elizabethan state; and even a king himself, Charles I, beheaded for his alleged crimes against the English people. These high-profile executions were only the tip of an iceberg. Violence was also an everyday fact of town and village life. Convicted criminals faced mutilation and even hanging for what we would now consider petty crimes. Preachers counseled husbands to whip and beat their wives into godly obedience. Every so often, a woman was burned for conspiring with evil spirits. Each day, villagers encountered maimed soldiers returning from Henry VIII's wars against France, Elizabeth's against Spain, or from the civil wars that turned brother against brother during the mid-seventeenth century. This course examines the social and political forces that shaped the violent contours of sixteenth- and seventeenth-century Britain. While much of our focus will be on the high political dramas of the Reformation, the Monarchical Republic? of Elizabeth I, and the Civil War, we are also going to investigate the developments that had at least an equal impact on the lives of British men and women: new educational practices, the proliferation of print, new ways of organizing rural labor, the scientific revolution, the emergence of a vigorous trans-Atlantic trade, and the development of a plantation system in Ireland that would become a model for British colonization throughout the globe. There will be a mid-term, a final, an analytical book review, and a critical analysis of a major primary source.

**HIST 3704W Daily Life in Europe: 1300-1800**

3 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;

**Instructor:** Phillips,Carla Rahn

**Description:** Under the broad heading of "Daily Life in Europe," we will examine various key issues in the lives of men and women in Europe between the Black Death and the Industrial Revolution. Some of the historical questions we will ask are: What were the rates of birth, marriage, and death in various European countries? What effect did epidemics and wars have on population size and the quality of life? How did men and women find marriage partners? What experiences did they have in their marriages and family lives? How did people at various levels of society make a living? How and why did some of them travel far from where they were born? Did their standards of living change over time? Who held the reins of power? How was society structured and how did social classes relate to one another? How and why did ordinary people rebel against governments and the privileged classes? What results did these rebellions have? What role did formal religion and other beliefs play in people's lives? Was witchcraft a major force in society? These and other questions will shape the lectures, readings, and discussions in the course. Whether the readings deal with family and sexual behavior, farming, manufacturing, buying and selling goods, seafaring, religion, culture, or other topics, all of the authors discuss how interpretations have changed over time and offer their own revised interpretations of daily life in the past, based on an expanding body of documentary evidence. The class therefore introduces students, not only to the history of daily life in the early modern period, but also to the ways that historians interpret it, and the ways that they, as critical thinkers, can assess the interpretations of those historians.

**Style:** 80% Lecture, 20% Small Group Activities.

**Grading:** 20% mid exam, 40% final exam, 30% reports/papers, 10% class participation. Class participation includes attendance, discussion groups, and informal presentations. Students must complete all of the graded assignments in order to receive a grade for the course. Unexcused late work is penalized.

**Exam Format:** Essays, both short and long, plus a map on the midterm. Students will know the questions for the final
HIST 3714 Medieval Spain
3 credit(s);
Instructor: Phillips Jr, William D
Description: This course will trace the history of the peoples of the Iberian peninsula during the Middle Ages. The emphasis will be on the interactions of the different cultures -- Christian, Jewish, and Muslim -- that gave medieval Spain its unique flavor in Europe. Emphasis as well on environment, ecology, and institutional development. Instructor is William D. Phillips, Professor of History and Director of the Center for Early Modern History, who has written six books dealing with aspects of medieval Spain.
Style: 40% Lecture, 40% Discussion, 10% Small Group Activities, 10% Student Presentation.
Grading: 30% mid exam, 40% final exam, 15% reports/papers, 15% class participation.

HIST 3727 History of the Holocaust
3 credit(s); Credit will not be granted if credit has been received for: RELS 3521W, 3 credit(s);
Instructor: Koneczny, Matthew James
Description: Student may contact the instructor or department for information.

HIST 3778 Jews of the Islamic Mediterranean and Christian Europe, 7th-17th Centuries
3 credit(s);
Instructor: Schroeter, Daniel J
Description: The Jewish Diaspora that emerged in late antiquity and the early Middle Ages was remarkably diverse, while at the same time Jews shared common religious and cultural traditions. This course explores how Jews were shaped by the societies and cultures of the Islamic Mediterranean World and Christian Europe from 700 to 1700, while maintaining a distinctive identity. Under the dominant religions of Islam and Christianity, Jews developed autonomous religious and cultural institutions and communities, which frequently changed as Jews were influenced by and adapted to their cultural surroundings and changing historical circumstances. The relationship between diverse Jewish communities throughout the Muslim Mediterranean and Christian Europe is explored. The connections between communities were created and maintained through trade, travel, and the exchange of rabbinical culture and Jewish religious authority across political boundaries. While Jewish status differed under Muslim and Christian rule, this course explores how the experience of Jews was influenced by changing local circumstances, migrations, expulsions, violence, persecution, and resettlement in new locations with the expansion of trade routes and political change in both the Islamic and Christian worlds.
Style: 80% Lecture, 20% Discussion.
Grading: 20% mid exam, 35% final exam, 30% reports/papers, 15% class participation.

HIST 3802 "Sinners, Saints, and Savages": Religion in Early America
3 credit(s); prereq Non-fr or instr consent;
Instructor: Fischer, Kirsten
Description: The United States is home to an astonishing array of religious beliefs and institutions. While mutual toleration is a widely-held idea, it hasn't always been this way. This course investigates the religious pluralism of early America and explores how people of differing faiths perceived, reacted to, and changed the two largest wars the world had ever seen. This lecture-based course emphasizes the study of race, ethnicity, gender, and nationalism. It is open to undergraduates and majors and non-majors alike. The course requires two papers and two take-home essay exams.
Style: 80% Lecture, 20% Discussion.
Grading: 20% mid exam, 30% final exam, 50% reports/papers.
Exam Format: Take-home essays

HIST 3804 Religion and the U.S. Founding: Contests Then and Now over the Place of Religion in Politics
3 credit(s); Credit will not be granted if credit has been received for: RELS 3623; Meets CLE req of Historical Perspectives;
Instructor: Fischer, Kirsten
Description: A heated debate rages in the U.S. today about the proper role of religion in American politics. In arguing about the appropriate relationship of church and state, contenders on all sides frequently support their claims with references to the framers of the U.S. Constitution. Some see these men as devout Christians intent on establishing a Christian Nation, while others view them as secularists focused on separating church and state. All sides use direct quotes to make their case. Who is right? This Historical Perspectives course explores how leading political figures wrote about religion during and after the framing of the U.S. Constitution. The course also investigates competing religious currents in the early Republic, the rise of the Religious Right in the 20th century, and debates in the late-18th century and today over the proper role of religion in American politics. See the syllabus for more information.
Style: 70% Lecture, 5% Film/Video, 10% Discussion, 15% Small Group Activities.
Grading: 40% Lecture, 40% Discussion, 10% Small Group Participation.
Exam Format: The mid-term exam will be written during class time. The final is a take-home exam.

HIST 3821 United States in the 20th Century to 1945
3 credit(s);
Instructor: Chang, David Anthony
Description: In this course, students will explore some of the most tumultuous decades in American history, a period of great contradictions. In less than fifty years, America enjoyed unparalleled prosperity and unprecedented depression. African Americans built the largest black mass movement in American history at the same time that the politically potent second Ku Klux Klan was on the rise. The feminist movement enjoyed its heyday and then feminism fell into a low point. Immigrants poured into American cities, and immigrants found America's doors slammed shut. And, of course, the United States fought in the two largest wars the world had ever seen. This lecture-based class emphasizes the study of race, ethnicity, gender, and nationalism. It is open to students who wish to read and write in depth to explore these events and topics. It is open to undergraduate majors and non-majors alike. The course requires two papers and two take-home essay exams.
Style: 80% Lecture, 20% Discussion.
Grading: 20% mid exam, 30% final exam, 50% reports/papers.
Exam Format: Take-home essays

HIST 3844 American Economic History to 1870
3 credit(s);
HIST 3959H Honors: How to Do History
A-F only, 3 credit(s); prereq History major or dept consent
Description: Student may contact the instructor or department for information.
Instructor: Green, George David

HIST 3960 Topics in History: Introduction to Jewish History and Civilization
3 credit(s), max credits 16, 5 completions allowed; prereq Jr or sr or instr consent
Instructor: Jassen, Alex P
Description: Student may contact the instructor or department for information.

HIST 3980W Supplemental Writing in History
A-F only, 1 credit(s), max credits 4, 4 completions allowed; prereq instr consent; must take a 3-cr 3xxx or 5xxx course taken concurrently; Meets CLE req of Writing Intensive
Instructor: STAFF
Description: With the permission of the instructor of a history course, a student may add this one-credit independent study in order to make the course writing intensive. The student would then be expected to do additional written work, including the revision of at least one paper.

HIST 4961V Honors: Major Paper
A-F only, 4 credit(s); prereq dept consent, instr consent; sign up in Undergraduate Studies Office two sem in advance; Meets CLE req of Writing Intensive
Instructor: Green, George David
Description: Student may contact the instructor or department for information.

HIST 4961W Major Paper
A-F only, 4 credit(s); prereq dept consent, instr consent; sign up in Undergraduate Studies Office two sem in advance; Meets CLE req of Writing Intensive
Instructor: Lindquist, Malinda A
Description: Student may contact the instructor or department for information.

HIST 4961W Major Paper
A-F only, 4 credit(s); prereq dept consent, instr consent; sign up in Undergraduate Studies Office two sem in advance; Meets CLE req of Writing Intensive
Instructor: McNamara, Patrick J
Description: Student may contact the instructor or department for information.

HIST 5520 Topics in Chinese History: Human Rights and Identity in Modern China
3 credit(s), max credits 12, 4 completions allowed; prereq Jr or sr or instr consent
Instructor: Farmer, Edward L
Description: HUMAN RIGHTS AND IDENTITY IN MODERN CHINA This course is intended as a broad exploration of issues
related to human rights in China. It is open to graduate students and advanced undergraduates who want to gain a general understanding of the topic. Previous course work on China or human rights is not required. We will consider how a Chinese human rights discourse has emerged over the course of a century of revolution and economic development. Our discussion will pay particular attention to the evolution of China’s legal system, the status of intellectuals, reproductive rights, religious practice, the status of ethnic minorities, and the state control of media. Assignments will be flexibly structured according to your level, interests, and whether or not you plan to do further research in the field. Instructor: Edward L. Farmer

HIST 5671 Proseminar: Modern Britain
A-F only, 3 credit(s); prereq instr consent ;
Instructor: Clark, Anna Kirsten
Description: This graduate level seminar will focus on intense reading, discussion, research in primary sources, and analytical writing. It will cover Britain and its empire from the 18th century to the present. Recently historians have debated the extent to which imperialism shaped British society. Was it the dominant force in British society and politics, or were other issues, such as class and welfare, more important? This class will examine this question through reading monographs and articles as well as through research projects. Topics may include British identity in the 18th century, anti-slavery, class and gender conflicts, changing notions of citizenship, slumming, Ireland, India, Africa, and multicultural Britain. This class will be useful for a comparative study of imperialism and of issues of class, gender and welfare in Europe and the United States.

Style: 10% Lecture, 90% Discussion.
Grading: 80% reports/papers, 20% class participation.

HIST 5802 Readings in American History, 1848-Present
A-F only, 3 credit(s);
Instructor: Welke, Barbara Young
Description: Student may contact the instructor or department for information.

HIST 5900 Topics in European/Medieval History: Medieval Urban History
A-F only, 3 credit(s), max credits 16, 5 completions allowed; prereq Grad or [advanced undergrad with instr consent ];
Instructor: Reyerson, Kathryn L
Description: Student may contact the instructor or department for information.

HIST 5900 Topics in European/Medieval History: Nationalism and National ID in Modern Europe
A-F only, 3 credit(s), max credits 16, 5 completions allowed; prereq Grad or [advanced undergrad with instr consent ];
Instructor: Cohen, Gary B.
Description: Student may contact the instructor or department for information.

HIST 5910 Topics in U.S. History: Popular Culture and Politics in the 20th century
3 credit(s), max credits 16, 5 completions allowed; prereq Grad or advanced undergrad student with instr consent ;
Instructor: May, Lary L
Description: Student may contact the instructor or department for information.

HIST 5910 Topics in U.S. History: History of U.S. Capitalism
3 credit(s), max credits 16, 5 completions allowed; prereq Grad or advanced undergrad student with instr consent ;
Instructor: Deutsch, Tracey A
Description: Student may contact the instructor or department for information.

HIST 5910 Topics in U.S. History: Comparative Masculinities
3 credit(s), max credits 16, 5 completions allowed; prereq Grad or advanced undergrad student with instr consent ;
Instructor: Lindquist, Malinda A
Description: Student may contact the instructor or department for information.

HIST 5910 Topics in U.S. History: Readings in Critical Gender and Sexuality Studies
3 credit(s), max credits 16, 5 completions allowed; prereq Grad or advanced undergrad student with instr consent ;
Instructor: Kunzel, Regina G
Description: This course brings historical work on gender and sexuality (with an emphasis on U.S. contexts) into conversation with scholarship in interdisciplinary sexuality and queer studies. It is organized around themes and questions that animate recent scholarship on gender and sexuality that engages the past, broadly construed. Because gender and sexuality are structures through which race, migration, citizenship, empire, subjectivity, knowledge, identity, and embodiment are produced and circulated, we will also read work in which gender and sexuality are not central categories of analysis. We will think closely about methodologies used in the historical study of sexuality and gender, and about the challenges posed by those histories to historical methods. Bringing together foundational scholarship and pathbreaking recent work, our readings invite examination of the interactions between historical and theoretical approaches and the ways these interactions push scholarship in new directions.

HIST 5920 Topics in African Social History
3 credit(s), max credits 15, 5 completions allowed; prereq Grad or instr consent ;
Instructor: Atkins, Keletso E
Description: Student may contact the instructor or department for information.

HIST 5960 Topics in History: Abundance & Scarcity
3 credit(s), max credits 16, 5 completions allowed; prereq Grad or [advanced undergrad with instr consent ];
Instructor: Waltner, Ann Beth
Description: Student may contact the instructor or department for information.

HIST 5960 Topics in History: Historical Methods for Policy and Analysis
1.5 credit(s), max credits 16, 5 completions allowed; prereq Grad or [advanced undergrad with instr consent ];
Instructor: Stone, Paul Clois
Description: Student may contact the instructor or department for information.

HIST 5960 Topics in History: Researching Japan
3 credit(s), max credits 16, 5 completions allowed; prereq Grad or [advanced undergrad with instr consent ];
Instructor: Mizuno, Hiromi
Description: Student may contact the instructor or department for information.

HIST 8015 Scope and Methods of Historical Studies
A-F only, 3 credit(s); prereq instr consent ;
Instructor: Wolfe, Thomas C
Description: Student may contact the instructor or department for information.

HIST 8900 Topics in European/Medieval History: Medieval Urban History
A-F only, 3 credit(s), max credits 16, 5 completions allowed; prereq Grad or [advanced undergrad with instr consent ];
Instructor: Reyerson, Kathryn L
Description: Student may contact the instructor or department for information.

HIST 8900 Topics in European/Medieval History: Nationalism and National ID in Modern Europe
A-F only, 3 credit(s), max credits 16, 5 completions allowed; prereq Grad or [advanced undergrad with instr consent ];
Instructor: Cohen, Gary B.
Description: Student may contact the instructor or department for information.

HIST 8910 Topics in U.S. History: Comparative Masculinities
A-F only, 3 credit(s), max credits 16, 5 completions allowed; prereq Grad or [advanced undergrad with instr consent ];
Instructor: Lindquist, Malinda A
Description: Student may contact the instructor or department for information.
HIST 8910 Topics in U.S. History: Readings in Critical Gender and Social Justice
A-F only, 3 credit(s), max credits 16, 5 completions allowed;
Instructor: Kunzel, Regina G
Description: This course brings historical work on gender and sexuality (with an emphasis on U.S. contexts) into conversation with scholarship in interdisciplinary sexuality and queer studies. It is organized around themes and questions that animate recent scholarship on gender and sexuality that engages the past, broadly construed. Because gender and sexuality are structures through which race, migration, citizenship, empire, subjectivity, knowledge, identity, and embodiment are produced and circulated, we will also read work in which gender and sexuality are not central categories of analysis. We will think closely about methodologies used in the historical study of sexuality and gender, and about the challenges posed by those histories to historical methods. Bringing together foundational scholarship and pathbreaking recent work, our readings invite examination of the interactions between historical and theoretical approaches and the ways these interactions push scholarship in new directions.

HIST 8920 Topics in African History: Postcolonial Africa
A-F only, 3 credit(s), max credits 16, 5 completions allowed;
Instructor: Pohlandt-McCormick, Helena
Description: Student may contact the instructor or department for information.

History of Medicine
510 Diehl Hall (Box 506 Mayo)

HMED 3001V Health, Disease, and Healing I
4 credit(s); prereq Honors; Credit will not be granted if credit has been received for: HMED 3001W; Meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;
Instructor: Shackelford, Jole Richard
Description: History of Medicine 3001V is a writing intensive survey of the history of Western biomedical ideas, research, and health care practices from the ancient Mediterranean and Middle Eastern foundations to the clinical movement of the early nineteenth century. These ideas and practices have left their marks on modern medicine and help explain the origins and appeal of today's alternative medicines as well. Many of our attitudes about the proper relationship between patient and practitioner, for example, are founded on the ideas set down by Hippocrates and Galen in ancient Greece and Rome. Today's herbal medicine is also in large measure shaped by the experiences and discoveries of early European and Middle Eastern healers. Similarly, one can find the origins of modern pseudo-scientific and quack medicines in early modern theories about how to regulate the kinds of and amounts of stimulation that people receive from their environments, which were believed to affect the healthy flow of fluids and spirits throughout the body.
Style: 75% Lecture, 25% Discussion.
Grading: 15% midterm exam, 25% final exam, 45% reports/papers, 15% class participation.
Exam Format: In-class, prose (essay-style) examinations.

HMED 3001W Health, Disease, and Healing I
4 credit(s); Credit will not be granted if credit has been received for: HMED 3001V; Meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive;
Instructor: Shackelford, Jole Richard
Description: History of Medicine 3001W is a writing intensive survey of the history of Western biomedical ideas, research, and health care practices from the ancient Mediterranean and Middle Eastern foundations to the clinical movement of the early nineteenth century. These ideas and practices have left their marks on modern medicine and help explain the origins and appeal of today's alternative medicines as well. Many of our attitudes about the proper relationship between patient and practitioner, for example, are founded on the ideas set down by Hippocrates and Galen in ancient Greece and Rome. Today's herbal medicine is also in large measure shaped by the experiences and discoveries of early European and Middle Eastern healers. Similarly, one can find the origins of modern pseudo-scientific and quack medicines in early modern theories about how to regulate the kinds of and amounts of stimulation that people receive from their environments, which were believed to affect the healthy flow of fluids and spirits throughout the body.
Style: 75% Lecture, 25% Discussion.
Grading: 15% midterm exam, 25% final exam, 45% reports/papers, 15% class participation.
Exam Format: In-class, prose (essay-style) examinations.

HMED 3055 Women, Health, and History
3 credit(s);
Instructor: Manganaro, Christine L
Description: This course combines a lecture and seminar format. It will investigate women's historical roles as healers, patients, and health activists as well as men's roles and the relationships between them, primarily in the United States since 1800. Students will focus on how gender has played a role in the professionalization of medicine and how ideas about gender have affected scientific research. The course will address the history of sex and gender as ideas; medical and public discussion of mental illness, body image, reproductive issues, and aging; sexuality; and the relationships between traditional and professional healers. It will also focus on the relationships between gender, race, and class relative to diagnosis and access to health care and medical education, as well as gendered facets of government health policy. Using secondary literature, primary sources such as diaries, and film, students will complete writing assignments that provide opportunities to explore individual interests. This course is intended for mid- to upper-level undergraduates. It does not require previous work in history or history of medicine.
Style: 20% Lecture, 60% Discussion, 15% Small Group Activities, 5% Student Presentation.
Grading: 10% midterm exam, 10% final exam, 60% reports/papers, 20% class participation.
Exam Format: essay, short answer

HMED 3075 Technology and Medicine in Modern America
3-5 credit(s), max credits 5, 1 completion allowed; Meets CLE req of Historical Perspectives; meets CLE req of Technology and Society;
Instructor: Kernahan, Peter
Description: Technology occupies a central and dominant position in contemporary American medicine. Almost every encounter with the health care system involves technology. We regard it as perfectly normal to be examined with instruments, to be imaged, tested, and treated by machines, and to have the knowledge produced by those machines interpreted, stored, and disseminated electronically. This encounter with technology often begins with an electronically generated appointment and concludes with an electronically generated bill. At home we can use technology to monitor our own health with blood pressure cuffs, glucose monitors; pregnancy tests; bathroom scales; and "talking" pillboxes. Yet at the beginning of the 20th century medical technology rarely intervened between doctor and patient. Over the course of this semester, we will examine how technology became so central to modern medicine, what forces drove this change, and how technology has affected medical practice, institutions, economics, and consumers - in short, all of us!
Grading: 20% midterm exam, 20% final exam, 40% reports/papers, 5% in-class presentation, 15% class participation.

HMED 3600 Directed Study
1-4 credit(s), max credits 12, 3 completions allowed; prereq instr consent;
Instructor: Gunn, Jennifer
Description: Student may contact the instructor or department for information.
HSCI 1714 Technology and Civilization: Stone Tools to Steam Engines
3-4 credit(s), max credits 4, 1 completion allowed; Credit will not be granted if credit has been received for: HSCI 3714; Meets CLE req of Historical Perspectives; meets CLE req of Technology and Society;
Instructor: Alexander, Jennifer Kams
Description: Technology is an enormous force in our society, and this course asks how it became so important. We explore the historical background, development, and character of the most powerful technological systems the world has known, from pre-historic stone tool societies, through Egypt and the pyramids, ancient Greece and Rome, the explosion of Islam, and the dynamic and often violent technologies of medieval Europe. In this class, you will get to know your fellow students and find out what their interests are, and you will discuss historical problems with them in small groups and in discussion sections. You will listen to lectures and see films about particular technologies, and you will learn to ask key questions about each technology: who were involved? what were the circumstances? The course is designed for undergraduates from a variety of backgrounds, including engineering, literature, history, business, and the sciences.
Style: 60% Lecture, 5% Film/Video, 35% Discussion.
Grading: 15% mid exam, 20% final exam, 25% reports/papers, 5% in-class presentation, 25% other evaluation. NOTE: two midterms, worth 15% each; 25% of grade based on discussion section
Exam Format: Essay exams.

HSCI 1715 Technology and Civilization: Waterwheels to the Web
3-4 credit(s), max credits 4, 1 completion allowed; Meets CLE req of Historical Perspectives; meets CLE req of Technology and Society;
Instructor: Thomas, Mary Margaret
Description: This course is designed for undergraduates interested in technology and history, and enrolls students with wide interests in the liberal arts, science, and engineering. There is no prerequisite. We explore the historical background and development of the most powerful technological system the world has ever known: Western Europe’s. We cover relations between technology and culture since the Industrial Revolution, the diffusion of industrial technologies around the world and how various cultures adopted/adapted them, and technology’s social impact, especially on Western society. We begin with case studies of industrialization in Britain, Germany, and the United States, and the connection between industrialization and exploration and discovery. We next focus on how different societies created and reacted to technologies such as the steam engine and electricity, and how the small technologies of daily life contributed to the growth of a society increasingly dependent on technology. Finally, we look at the increasingly complex technological system that nations and corporations developed to manage people and machines, and how these technologies related to social, cultural, and scientific attitudes. We end by considering the technologies of violence and hope that have dominated much of the twentieth-century.
Style: 60% Lecture, 25% Film/Video, 15% Discussion.
Grading: 15% midterm exam, 20% final exam, 30% reports/papers, 20% additional semester exams, 5% attendance, 10% class participation. 1715 students will do three papers, 3-5 pages each. 3715 students will do one 12-15 page research paper, with three components.
Exam Format: Short identification, essay.

HSCI 3211 Biology and Culture in the 19th and 20th Centuries
3 credit(s); Credit will not be granted if credit has been received for: HSCI 5211; Meets CLE req of Historical Perspectives;
Instructor: Borrello, Mark E
Description: The purpose of this course is to explore the development of the biological sciences from the 19th century naturalist tradition to the experimental, quantitative science of the 20th century. The course will focus on the areas of evolutionary biology, genetics, molecular biology and behavioral biology among others. From the outset, all of the varied branches of biology interacted in complex ways, yet each pursued its own set of questions and developed unique methods to investigate them. Through the examination of some of the key figures and advancements in biology we will develop a clearer understanding of the process of science. We will also pay close attention to the dynamic relationship between the science and the historical and cultural context within which they developed. The course will be divided into three sections. In the first section we will look at the naturalist tradition as represented in the work of Charles Darwin and A.R. Wallace and the early work in embryology and developmental biology. In the second section we will look at the development of genetics and its relation to evolutionary theory; and attempt to understand the complicated relationship between genetics and eugenics. Finally, we will examine the recent history of molecular biology and the attempts to reconnect the study of genetics, development and evolution. This course provides an opportunity for the investigation of the connections between biology and the broader cultural, economic and political contexts.
HSCI 3244 History of Ecology and Environmentalism
3 credit(s); Credit will not be granted if credit has been received for: HSCI 5244; Meets CLE req of Environment; meets CLE req of Historical Perspectives; Instructor: Rumore,Gina Maria
Description: Student may contact the instructor or department for information.

HSCI 3331 Technology and American Culture
3 credit(s); Credit will not be granted if credit has been received for: HSCI 5331; Meets CLE req of Historical Perspectives; meets CLE req of Technology and Society; Instructor: Seidel,Bob
Description: Technology plays a central role in American culture, from 18th century automated flour mills to the X-files. We'll explore the inventions that have shaped American history as well as the history that shaped the gadgets in lectures, discussions, videos and on the world-wide web and analyze the consequences in contemporary life. While no technical expertise is required to complete the course, you'll learn enough to make you capable of dealing with technological issues as a citizen, scholar, and consumer. Topics will include Native American technologies, Benjamin Franklin's inventions, labor-saving devices, military technology and the development of the American System of Manufactures, agriculture, mechanization of farming and of the home, and many other subjects from automobiles, automation, and artificial intelligence, to xerography, technology, and zygote techniques for cloning.
Style: 33% Lecture, 20% Film/Video, 30% Small Group Activities, 5% Student Presentation, 12% Web Based. Students are permanently assigned to small groups for weekly discussions and presentations.
Grading: 25% mid exam, 25% final exam, 15% quizzes, 10% attendance, 25% class participation. Class participation grades are based on small group discussions, attendance (required)
Exam Format: Short answer and short essay

HSCI 3333V Honors Course: Issues in American Science and Technology in the Past Century
3 credit(s); Meets CLE req of Civic Life and Ethics; meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive; Instructor: Kohlstedt,Sally Gregory
Description: Science and technology were defining elements in twentieth-century American life in the United States and indeed in much of the world. Using case studies involving such topics as eugenics as well as comparative studies of technology in the Soviet Union and the United States in the 1930s, and an analysis of post-war attitudes toward atomic and other sciences, we will explore some of the ways in which science has influenced American culture and the reciprocal kinds of expectations that have pushed forward and also reacted against some aspects of science and technology. Most units of the course will have on-line assignments, short readings, film and slide presentations and one-page response papers. These will be a mid-term and final examination. The class members will meet together for lectures, films, and similar activities, with one smaller discussion group meeting at the end of each week. Evaluation will take into consideration class and group participation, written assignments, and the exams.
Style: 57% Lecture, 33% Discussion. small group discussions
Exam Format: essay and short answer

HSCI 3714 Technology and Civilization: Stone Tools to Steam Engines
3-4 credit(s), max credits 4, 1 completion allowed; Meets CLE req of Historical Perspectives; meets CLE req of Technology and Society; Instructor: Alexander,Jennifer Karrs
Description: Technology is an enormous force in our society, and this course asks how it became so important. We explore the historical background, development, and character of the most powerful technological systems the world has known, from pre-historic stone tool societies, through Egypt and the pyramids, ancient Greece and Rome, the explosion of Islam, and the dynamic and often violent technologies of medieval Europe, concluding with the birth of the steam engine. In this class you will get to know your fellow students and find out what their interests are, and you will discuss historical problems with them in small groups and in discussion sections. You will listen to lectures and see films about particular technologies, and you will learn to ask key questions about each technology: who was involved? what were the circumstances of its development and use? The course is designed for undergraduates from a variety of backgrounds, including engineering, literature, history, business, and the sciences. Those enrolled in HSCI 3714 will also write a research paper on the history of a technology of their choice.
Style: 55% Lecture, 35% Discussion.
Grading: 25% mid exam, 20% final exam, 30% reports/papers, 25% class participation. note: two midterm exams
Exam Format: short answer and short essay

HSCI 3715 Technology and Civilization: Waterwheels to the Web
3-4 credit(s), max credits 4, 1 completion allowed; Meets CLE req of Historical Perspectives; meets CLE req of Technology and Society; Instructor: Thomas,Mary Margaret
Description: HSCI 3715 is designed for undergraduates interested in technology and history, and enrolls students with wide interests in the liberal arts, science, and engineering. There is no prerequisite. We explore the historical background and development of the most powerful technological system the world has ever known: Western Europe's. We cover relations between technology and culture since the Industrial Revolution, the diffusion of industrial technologies around the world and how various cultures adopted/adapted them, and technology's social impact, especially on Western society. We begin with case studies of industrialization in Britain, Germany, and the United States, and the connection between industrialization and exploration and discovery. We next focus on how different societies created/reacted to technologies such as the steam engine and electricity, and how the small technologies of daily life contributed to the growth of a society increasingly dependent on technology. Finally, we look at the increasingly complex technological system that nations and corporations developed to manage people and machines, and how these technologies related to social, cultural, and scientific attitudes. We end by considering the technologies of violence and hope that have dominated much of the twentieth-century.
Style: 60% Lecture, 25% Film/Video, 15% Discussion.
Grading: 15% mid exam, 20% final exam, 30% reports/papers, 20% additional semester exams, 5% attendance, 10% class participation. 1715 students will do three 3-5 page papers over the course of the semester. 3715 students will do one larger research project. 12-15 pages, that has three components.
Exam Format: Short identification, essay.

HSCI 3815 Revolutions in Science: Lavoisier, Darwin, and Einstein
3-4 credit(s), max credits 4, 1 completion allowed; Credit will not be granted if credit has been received for: HSCI 1815; Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives; Instructor: Janssen,Michel
Description: This class is the second part of a two-semester introductory survey of the history of science. The two parts can be taken independently of one another. This class covers a selection of developments in physics, chemistry, biology, and geology from the 18th-20th C. We examine the reasoning of some of the leading scientists involved, while being sensitive to the broader social and cultural contexts in which they worked. We also pay attention to the ways in which we obtain knowledge in the history of science. To allow for meaningful analysis of the material, the course is clustered around a few pivotal episodes: the chemical revolution of the late-18th C., the Darwinian revolution of the 19th C and the relativity and quantum revolutions of the early-20th C. We also study the impact of...
these scientific developments on society. In particular, we look at
the reaction of various religious groups to Darwin's theory and at
the development of nuclear weapons made possible by the
development of quantum mechanics and nuclear physics. We pay
special attention to the increasingly international character of science during the period
covered in this class, while emphasizing differences between the
developments in various countries (notably Britain, Germany,
France, and the United States). The objective of the course is to
give you a better understanding not just of the historical
development of scientific ideas but also of the role science plays
in modern societies by tracing how it came to play that role.
Style: 75% Lecture, 25% Discussion.
Grading: 10% mid exam, 10% final exam, 65% reports/papers,
5% class participation, 10% other evaluation. attendance
Exmam Format: a combination of short essay questions and
multiple choice (old exams will be made available)

HSCI 4321 History of Computing
3 credit(s); Credit will not be granted if credit has been
received for: CSCI 4921; Meets CLE req of Historical
Perspectives; meets CLE req of Technology and Society;
Instructor: Misa, Thomas J
Description: Student may contact the instructor or department
for information.

HSCI 5211 Biology and Culture in the 19th and 20th Centuries
3 credit(s); Credit will not be granted if credit has been
received for: HSCI 3211;
Instructor: Borrello, Mark E
Description: The purpose of this course is to explore the
development of the biological sciences from the 19th century
naturalist tradition to the experimental, quantitative science of the
20th century. The course will focus on the areas of evolutionary
biology, genetics, molecular biology and behavioral biology
among others. From the outset, all of the varied branches of
biology interacted in complex ways; yet each pursued its own set
of questions and developed unique methods to investigate
them. Through the examination of some of the key figures and
advancements in biology we will develop a clearer understanding
of the process of science. We will also pay close attention to the
dynamic relationship between the science and the historical and
cultural context within which they developed. The course will be
divided into three sections. In the first section we will look at the
naturalist tradition as represented in the work of Charles Darwin
and A.R. Wallace and the early work in embryology and
developmental biology. In the second section we'll look at the
development of genetics and its relation to evolutionary
theory; and attempt to understand the complicated relationship
between genetics and eugenics. Finally, we will examine the recent
history of molecular biology and the attempts to reconnect the
study of genetics, development and evolution. This course
provides an opportunity for the investigation of into the
connections between biology and the broader cultural, economic
and political contexts.
Style: 50% Lecture, 50% Discussion.

HSCI 5244 History of Ecology and Environmentalism
3 credit(s); Credit will not be granted if credit has been
received for: HSCI 3244;
Instructor: Rumore, Gina Maria
Description: Student may contact the instructor or department
for information.

HSCI 5331 Technology and American Culture
3 credit(s); Credit will not be granted if credit has been
received for: HSCI 3331;
Instructor: Seidel, Bob
Description: Technology plays a central role in American
culture, from 18th century automated flour mills to the X-files.
We'll explore the inventions that have shaped American history
as well as the history that shaped the gadgets in lectures,
discussions, videos and on the world-wide web and analyze the
consequences in contemporary life. While no technical expertise
is required to complete the course, you'll learn enough to make
you capable of dealing with technological issues as a citizen,
scholar, and consumer. Topics will include Native American
technologies, Benjamin Franklin's inventions, labor-saving
devices, military technology and the development of the
American System of Manufactures, agriculture, mechanization
of farming and of the home, and many other subjects from
automobiles, automation, and artificial intelligence, to
xerography, Y-technology, and zygote techniques for cloning.
Style: 33% Lecture, 20% Film/Video, 30% Small Group
Activities, 5% Student Presentation, 12% Web Based. Students
are permanently assigned to small groups for weekly discussions
and presentations.
Grading: 25% mid exam, 25% final exam, 15% quizzes, 10%
attendance, 25% class participation. Class participation grades
are based on small group discussions, attendance (required)
Exam Format: Short essay identification

HSCI 5993 Directed Studies
1-15 credit(s), max credits 15, 1 completion allowed; prereq
instructor consent;
Instructor: Kohlstedt, Sally Gregory
Description: Student may contact the instructor or department
for information.

HSCI 8112 Historiography of Science, Technology, and
Medicine
A-F only, 3 credit(s);
Instructor: Seidel, Bob
Description: Student may contact the instructor or department
for information.

HSCI 8940 Seminar: History of Science and Technology in the
Americas
3 credit(s); prereq instructor consent;
Instructor: Kohlstedt, Sally Gregory
Description: Science has been a defining feature of American
history from colonial beginnings at the start of the Scientific
Revolution in England and Europe. Analysis of how
colonial/imperial relations shaped early science and technology,
the ways in which science became embedded in public life and
popular culture, the framing of an increasingly influential
scientific community, and the strong inter-connected relationship
between science and society in the twentieth century will be
organizing principles for the seminar. Students will read the
equivalent of a book each week, write several book reviews, and
prepare a final project (perhaps historiographical) on a topic of
their choosing.

HSCI 8950 Seminar: Science and Technology in Cultural
Settings
3 credit(s); prereq instructor consent;
Instructor: Alexander, Jennifer Kams
Description: Artistry, Engineering, Bricolage: Early modern
technologies in cultural context. The early modern period was an
important time of cultural formation, in which science and
technology began to be applied to cultural problems. This
seminar looks at technologies, at tools and techniques designed
physically to intervene in society and the world. It examines the
visual culture of tools, techniques, and technologies, and its
relationship to artistic practice; the construction of the moral
superiority of builders of architectural structures vs. builders of
machines; the hardening of the boundary between craft as
indigenous innovation and as guild practice; and the role of
scientific instrument makers in supporting not only the
researches of natural philosophers but also the growing authority
of the state. We consider Leonardo and Galileo as engineers;
compare early mechanical drawings with popular ?Theaters of
Machines? (ornate picture books of all sorts of devices); examine
differing notions of craft in Europe, India, and China; and
analyze the cultural role of scientific instrument makers as intermediaries
between military, public, and governmental cultures. The
seminar asks what it means to speak of technical culture during
the early modern period, and if technical culture transcended
other boundaries such as nationality and religion.
Style: 90% Discussion, 10% Student Presentation. Almost all of
class time will be devoted to discussion of readings.
Grading: 25% reports/papers, 5% in-class presentation, 70%
class participation. Attendance is required.
HMNG 1011 Beginning Hmong
5 credit(s); Credit will not be granted if credit has been received for: HMNG 4001;
Instructor: LeYang, Maxwell
Description: Beginning Hmong 1011 is a course that teaches Hmong to true beginners (native speakers and non-native speakers). Students who have inherited the basics of the written language are advised to take the Accelerated Hmong course. The contents of Beginning Hmong 1011 include an exposure to the primary level of the written language, basic everyday conversation, and elementary vocabularies. The course will familiarize students with Hmong alphabets (tone markers, singular and plural vowels and consonants), pronunciation, sentence structure, and the parts of speech. Class activities will be designed surrounding health, education, and consumer themes. A minimum exploration of Hmong culture will be emphasized. Upon completion of this course, students are expected to be able to converse in simple Hmong dialogues and compose simple paragraphs. Required Texts The text for the course is Phau Xyaum Nyeem Ntaww Hmong Dawb. There will also be supplemental materials provided by the instructor. You can find the Text at Paradigm.
Style: 50% Lecture, 25% Discussion. class and project activities
Grading: 30% final exam, 30% quizzes, 10% in-class presentation, 10% problem solving, 10% other evaluation. Project
Exam Format: multiple choice, short answers, true/false

HMNG 1015 Accelerated Beginning Hmong
5 credit(s); prerequisite Ability in basic spoken Hmong; Credit will not be granted if credit has been received for: HMNG 4005;
Instructor: Vang, Bee
Description: Student may contact the instructor or department for information.

HMNG 3021 Intermediate Hmong
5 credit(s); prerequisite 1012; Credit will not be granted if credit has been received for: HMNG 4003;
Instructor: Vang, Bee
Description: Student may contact the instructor or department for information.

HMNG 3290 Hmong Language Teaching Tutorial
S-N only, 1 credit(s), max credits 2; prerequisite Grade of A in 3022;
Instructor: LeYang, Maxwell
Description: Student may contact the instructor or department for information.

HMNG 4001 Beginning Hmong
3 credit(s); prerequisite Grad student; Credit will not be granted if credit has been received for: HMNG 1011;
Instructor: LeYang, Maxwell
Description: This 4xxx-level course is a special option for graduate or professional students to take the 1xxx-level Beginning Hmong course for reduced credits. If you are a graduate or professional student, you may register for Beginning Hmong under the 4001 course number for 3 credits. Credit will not be granted if credit has been received for HMNG 1011. Beginning Hmong 4001 is a course that teaches Hmong to true beginners (native speakers and non-native speakers). Students who have inherited the basics of the written language are advised to take the Accelerated Hmong course. The contents of Beginning Hmong 4001 include an exposure to the primary level of the written language, basic everyday conversation, and elementary vocabularies. The course will familiarize students with Hmong alphabets (tone markers, singular and plural vowels and consonants), pronunciation, sentence structure, and the parts of speech. Class activities will be designed surrounding health, education, and consumer themes. A minimum exploration of Hmong culture will be emphasized. Upon completion of this course, students are expected to be able to converse in simple Hmong dialogues and compose simple paragraphs. Required Texts The text for the course is Phau Xyaum Nyeem Ntaww Hmong Dawb. There will also be supplemental materials provided by the instructor. You can find the Text at Paradigm.
Style: 50% Lecture, 25% Discussion. class and project activities
Grading: 30% final exam, 30% quizzes, 10% in-class presentation, 10% class participation, 10% problem solving, 10% other evaluation. Project
Exam Format: multiple choice, short answers, true/false

HMNG 4003 Intermediate Hmong
3 credit(s); prerequisite 4002, grad student; Credit will not be granted if credit has been received for: HMNG 3021;
Instructor: Vang, Bee
Description: Student may contact the instructor or department for information.

HMNG 4005 Accelerated Beginning Hmong
3 credit(s); prerequisite Ability in basic spoken Hmong, grad student; Credit will not be granted if credit has been received for: HMNG 1015;
Instructor: Vang, Bee
Description: Student may contact the instructor or department for information.

HSEM 2011H Honors Seminar: Early Modern Masterpieces in the MIA
A-F only, 3 credit(s); max credits 6; prerequisite [Fr or soph] honors student;
Instructor: Ostrow, Steven F
Description: This seminar examines a small handful of masterpieces? produced by European artists during the 17th and 18th centuries. In contrast to the way these works are traditionally taught (briefly in the context of a lecture), in this seminar each class meeting is devoted to a single work of art, delving into the circumstances behind its creation, the way it was made, and the complex meanings it embodies. This seminar will engage, in other words, issues of patronage, production, style, connoisseurship, theory, and interpretation. Works by Artemisia Gentileschi, Pieter Claesz, Gerrit van Honthorst, Rembrandt van Rijn, Nicolas Poussin, Claude Lorrain, Guercino, Jean-Baptiste Simeon Chardin, and Francisco de Goya are our focus. Steven F. Ostrow, Professor and Chair of the Department of Art History, received his Ph.D. from Princeton University. A specialist in early modern Italian art, he has received a number of fellowships and awards, including, most recently, the Rome Prize. Ostrow is the author (and editor) of a number of books and articles, which range in their subject matter from late 16th-century sculpture and Italian Baroque art theory to the biographical construction of artists.

HSEM 2017H Honors Seminar: Persuasion and Power: Greek, Roman, and American
A-F only, 3 credit(s); max credits 6; prerequisite [Fr or soph] honors student; Meets CLE req of Civic Life and Ethics;
Instructor: Cole, Spencer E
Description: This course will explore the role of rhetoric and oratory in the civic life of ancient Greece and Rome and also consider their place in American political culture. We will study the development of rhetorical theory and practice in Greece and Rome and examine the controversies incited by the use and abuse of the art of persuasion. With a heightened awareness of the connections between rhetorical strategy and political power, we will then analyze the ways in which rhetoric has operated in the American political arena by considering the role of public oratory in the Civil War and the Civil Rights Movement. Our study of rhetoric and power in contemporary society will take its
bearings from thinkers (McLuhan; Lakoff; Jamieson) who adapt and challenge ancient theories of rhetoric and persuasion in their influential analyses of political discourse and popular culture. Using 2008 election (Presidential; MN Senate) as case studies, we will ask ourselves: How has the digital revolution changed political discourse? How does rhetoric shape our perceptions of a candidate or cause? Which persuasive strategies from antiquity still have a vital role in the media ecology of the 21st century? Spencer Cole received his PhD (Classics) in 2006 from Columbia University, where he taught in the College’s humanities core curriculum. Before coming to Minnesota he taught at Princeton University.

HSEM 2045H Honors Seminar: Aesthetics of Diversity A-F only, 3 credit(s), max credits 6; prereq [Fr or soph] honors student; Meets CLE req of Global Perspectives; Instructor: Junghare, Indira Y
Description: This course will discuss both cultural diversity and biodiversity in terms of their contribution to ?all-inclusive? and ?interdependent? existence. The diversity of life will be analyzed from an interdisciplinary perspective in relation to being, becoming and behaving?philosophical (idealistic-metaphysical), evolutionary (realistic-scientific), socio-cultural (anthropological-linguistic), and pragmatic humanistic (ethical-moral). The course will focus on diversity as an aesthetic phenomenon and its implications for our day-to-day living at various levels?individual, societal, global, and universal. The goal of the course is to create awareness and understanding of the positive contribution of diversity to the maintenance of peaceful and healthy lives. Indira Junghare, Professor of Linguistics and South Asian Languages and Cultures, has taught and published books and articles in sociolinguistics, linguistics, literature, philosophy, and religions of India, including Buddhism and Hinduism. In recent years, she has been engaged in the creation and development of Diversity-Ethics-Peace Studies through teaching and research. She is a recipient of numerous awards including the CLA Distinguished Teacher Award and Outstanding Faculty Award. She taught the Honors seminars: ?You are You: Philosophy of Diversity? and ?Difference and Understanding Diversity: A Universal Perspective.? 

HSEM 2053H Honors Seminar: The Psychology of Paranormal Phenomena A-F only, 3 credit(s), max credits 6; prereq [Fr or soph] honors student; Instructor: Fletcher, Charles R
Description: Research has shown that most Americans hold one or more supernatural, paranormal, or pseudoscientific beliefs. These include beliefs in mind reading, fortune telling, psychokinesis, remote viewing, therapeutic touch, out-of-body experiences, alien abduction, and cryptozoology. This course has two goals: The first is to introduce students to critical thinking and behavioral research methods. The second is to critically evaluate the evidence for a variety of supernatural, paranormal, and pseudoscientific claims. Students will design and carry out their own experimental tests of these claims. The course will also include a guest lecture and demonstration by a local psychic. Reading per week: 40 pages; three written papers (3-5 pages each); one group presentation; 4 quizzes. Charles R (Randy) Fletcher holds a B.A. in Psychology from the University of California at Berkeley and a Ph.D. in Psychology from the University of Colorado at Boulder. His primary research focus involves working on the psychological processes involved in reading and language comprehension. He teaches the Psychology Department’s Honors Research Practicum and a course on the Psychology of Language.

HSEM 2101H Honors Seminar: Food and Drug Safety: Who can you trust? A-F only, 2 credit(s), max credits 6; prereq [Fr or soph] honors student; Instructor: Siliciano, Paul G
Description: Each time you pick up the newspaper, you are likely to find an article describing concerns about food or drug safety. Often, reports are released that contradict the findings of previous studies. For example, hormone replacement therapy for post menopausal women has been through repeated cycles of recommendation and rejection over the past 30 years. How does the consumer know which study to believe? Consider the case of Vioxx, a prescription pain reliever for anti-inflammatory drug, which was widely prescribed and earned billions of dollars for Merck. Five years after its introduction, Vioxx was linked to heart disease and withdrawn, and Merck lost billions in lawsuits. How did Vioxx go from wonder drug to potential poison? Why did the safety testing not reveal this serious complication? This seminar will introduce students to the processes of food and drug testing, basic statistical analysis, and elementary biochemistry. Students will use the primary literature to research safety studies, and to learn how the body metabolizes foods and drugs. The course is designed for non-science majors, but a background in high school chemistry is required. Paul Siliciano received his A.B. from Princeton University and his Ph.D. from the University of Pennsylvania. After a postdoctoral fellowship at the University of California, San Francisco, he came to Minnesota and set up his lab studying RNA metabolism. He has taught everything from freshman biology to advanced graduate seminars, but his favorite courses to teach are those that introduce practical biochemistry to non-majors.

HSEM 2205H Honors Seminar: Understanding Signs & Symbols in Chinese Culture A-F only, 2 credit(s), max credits 6; prereq [Fr or soph] honors student; Instructor: Chu, Sauman
Description: This class will focus on studying the interpretation of Chinese signs and symbols, and particularly the relationship between pictographs and written characters in Chinese culture. Class content is based on theories of visual communication, and symbolism in visual icons and images. The class will focus on examining the elements involved in the perceptual process of the interpreter. Additionally, this course will examine design elements such as the use of form, line, color, and shape in Chinese symbols relative to social and cultural influences. Sauman Chu is an Associate Professor at the College of Design. Her research focuses on cross-cultural design, and the application of technology in design education. Chu has been practicing graphic design for more than 20 years. Her creative production has received regional and national awards. Chu teaches courses in graphic design and multimedia and advises undergraduate and graduate (both MFA and Ph.D. levels) students.

HSEM 2529H Honors Seminar: Master of the Universe A-F only, 3 credit(s), max credits 6; prereq [Fr or soph] honors student; Instructor: Janssen, Michel
Description: In this seminar we will examine the life and science of Albert Einstein (1879?1955). About 75% of class time will be devoted to Einstein’s physics (relativity and quantum theory), about 25% to his personal life and his politics (pacifism, Zionism). You will develop a solid grasp of some of Einstein’s most famous conceptual innovations in physics with minimal use of mathematics. You will learn to draw so-called Minkowski diagrams that will help you visualize the counter-intuitive ideas about space and time of Einstein’s? 1905 special theory of relativity (length contraction, time dilation, twin paradox). You will be able follow the many twists and turns on the road to the crowning achievement of Einstein’s scientific career, the 1915 general theory of relativity which makes gravity part of the fabric of (curved) space-time. You will learn about the so-called cosmological constant added to the theory in 1917, which Einstein later called his ?biggest blunder? but which has made a surprise comeback in recent years to account for the accelerated expansion of the universe. Working through an instructive simple example, you will also learn the basic formalism of quantum mechanics, the theory that moved Einstein to remark that ?God does not play dice.? You will be able to follow the famous 1935 argument of Einstein, Podolsky, and Rosen (EPR) that quantum mechanics cannot possibly be the case all there is to say about physical reality. In addition to covering Einstein’s physics, we will set aside class time throughout the semester to discuss the recent
critically-acCLAIMed biography of Einstein by Walter Isaacson that you will be reading in conjunction with material on the physics. The different parts of the class?Einstein?s physics, his personal life, and his role in managing his legacy?are woven together so that you will write and perform parts of in small groups based on a treatment I co-wrote for a (yet to be made) Einstein movie about a crucial period in Einstein?s life, his first years in Berlin during World War I. Michel Janssen (Ph.D., History and Philosophy of Science, University of Pittsburgh, 1995) is a historian of science specializing in the relativity and quantum revolution in physics in the early decades of the 20th century. Before coming to the University of Minnesota in 2000, he was an editor at the Einstein Papers Project, responsible for the presentation of documents dealing with general relativity in The Collected Papers of Albert Einstein. He has published widely on the history of science and general relativity and, more recently, of quantum mechanics. He is co-editor of The Cambridge Companion to Einstein (in preparation). He won the 2005 George W. Taylor Career Development Award for exceptional contributions to teaching by a candidate for tenure.

HSEM 2701H Honors Seminar: Designer Genes: Genetic and Genomic Engineering
A-F only, 3 credit(s), max credits 6; prereq [Fr or soph] honors student; Meets CLE req of Technology and Society; Instructor: Koob, Michael D
Description: Genomic sequencing projects have given us an unprecedented potential for not only understanding an ever-expanding array of organisms as they currently exist, but for manipulating them as well. Students will learn to access and analyze genomic sequences from bacteria, simple eukaryotes and from mammalian genomes and will study detailed examples of how genes are expressed and regulated in these different species. For each of these model systems, individual students or small collaborative groups will propose new biological capabilities that they would like to see engineered into these species and will outline the modifications to the genome they would make to achieve this aim. The class will then evaluate these proposals and discuss the feasibility of each of the proposed projects, the potential impact of the work and any possible safety or ethical concerns associated with the project. The class will select one or more of these proposals to pursue and will work together to design down to the nucleotide level the gene(s) that would be removed, inserted or modified in the model organism, precisely how the expression of the gene(s) would be regulated, and the experimental approaches that would be used to make these genomic sequence modifications. Michael Koob received his PhD working on the early phases of the human genome project. His research group has since identified and characterized mutations that cause inherited forms of neurodegenerative diseases and has also developed be used to make these genomic sequence modifications. Michael Koob received his PhD working on the early phases of the human genome project. His research group has since identified and characterized mutations that cause inherited forms of neurodegenerative diseases and has also developed

HSEM 3037H Honors Seminar: Galileo and the Making of Modern Science
A-F only, 3 credit(s), max credits 6; prereq [Jr or sr] honors student; Meets CLE req of Technology and Society; Instructor: Shank, J.B.
Description: This course will explore the historical life and work of Galileo Galilei (1564-1642), the man often called the "founder of modern science." Topics will include the Renaissance Italian context for Galileo?s work, namely the particular arrangements of authoritative knowledge that prevailed in sixteenth-century Tuscany and Venice and the role that universities, the Catholic church, learned academies, and the state played in disciplining knowledge in this context. We will then consider the monumental episodes of Galileo?os career and read his seminal texts in conjunction with secondary commentaries upon them. Topics will include his telescopic observations of 1609-10; his battles with traditional Aristotelian natural philosophy; his experiments and arguments on behalf of experimental and mathematical physics; his defense of Copernican ?heliocentric? cosmology and his trial and condemnation by the Roman Catholic Church for heresy; and his work in mathematics and mathematical physics that paved the way for Newton and Einstein. Throughout, the goal will be to understand the achievements of Galileo in their specific historical and cultural context and to use these reflections for thinking about the nature of the modern science that he helped to initiate. J.B. Shank is a historian of early modern science who specializes in the cultural history of mathematics and physics during the period of the Scientific Revolution. His book The Newton Wars and the Beginning of the French Enlightenment (University of Chicago Press, 2001) located at the Starland Hutterite Community in Minnesota, and possibly to the Max Kade Institute in Madison, Wisconsin (which has a large collection of German-American) and to learn about a crucial period in Einstein?s life, his first years in Berlin during World War I. Michel Janssen (Ph.D., History and Philosophy of Science, University of Pittsburgh, 1995) is a historian of science specializing in the relativity and quantum revolution in physics in the early decades of the 20th century. Before coming to the University of Minnesota in 2000, he was an editor at the Einstein Papers Project, responsible for the presentation of documents dealing with general relativity in The Collected Papers of Albert Einstein. He has published widely on the history of science and general relativity and, more recently, of quantum mechanics. He is co-editor of The Cambridge Companion to Einstein (in preparation). He won the 2005 George W. Taylor Career Development Award for exceptional contributions to teaching by a candidate for tenure.

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A-F only, 3 credit(s), max credits 6; prereq [Jr or sr] honors student; Meets CLE req of Technology and Society; Instructor: Shank, J.B.
Description: This course will explore the historical life and work of Galileo Galilei (1564-1642), the man often called the "founder of modern science." Topics will include the Renaissance Italian context for Galileo?s work, namely the particular arrangements of authoritative knowledge that prevailed in sixteenth-century Tuscany and Venice and the role that universities, the Catholic church, learned academies, and the state played in disciplining knowledge in this context. We will then consider the monumental episodes of Galileo?os career and read his seminal texts in conjunction with secondary commentaries upon them. Topics will include his telescopic observations of 1609-10; his battles with traditional Aristotelian natural philosophy; his experiments and arguments on behalf of experimental and mathematical physics; his defense of Copernican ?heliocentric? cosmology and his trial and condemnation by the Roman Catholic Church for heresy; and his work in mathematics and mathematical physics that paved the way for Newton and Einstein. Throughout, the goal will be to understand the achievements of Galileo in their specific historical and cultural context and to use these reflections for thinking about the nature of the modern science that he helped to initiate. J.B. Shank is a historian of early modern science who specializes in the cultural history of mathematics and physics during the period of the Scientific Revolution. His book The Newton Wars and the Beginning of the French Enlightenment (University of Chicago Press, 2001) located at the Starland Hutterite Community in Minnesota, and possibly to the Max Kade Institute in Madison, Wisconsin (which has a large collection of German-American) and to learn about a crucial period in Einstein?s life, his first years in Berlin during World War I. Michel Janssen (Ph.D., History and Philosophy of Science, University of Pittsburgh, 1995) is a historian of science specializing in the relativity and quantum revolution in physics in the early decades of the 20th century. Before coming to the University of Minnesota in 2000, he was an editor at the Einstein Papers Project, responsible for the presentation of documents dealing with general relativity in The Collected Papers of Albert Einstein. He has published widely on the history of science and general relativity and, more recently, of quantum mechanics. He is co-editor of The Cambridge Companion to Einstein (in preparation). He won the 2005 George W. Taylor Career Development Award for exceptional contributions to teaching by a candidate for tenure.
HSEM 3039H Honors Seminar: Migrating Bodies: Identity, Place, Movement
A-F only, 2 credit(s), max credits 6; prereq [Jr or sr] honors student;
Instructor: Ferguson, Jeannine
Description: This seminar is connected to the project Migrating Bodies: Stories of Identity, Place, and Movement, which will bring African and African-American artists and performers to campus to explore themes of place and identity using stories told in multiple art forms. Participants in this course will attend performances and workshops by the artists, and create response pieces to what they see. Fall 2010 artist-participants include Somali novelist and playwright Nuruddin Farah, who will be in residence as the Winton Chair and is planning to develop and produce a play tentatively called Refugees, based on his book Yesterday . . . Tomorrow: Voices from the Somali Diaspora; photographer Abdi Robie and writer Doug Ruluddle of the Somali Documentary Project; and Jawole Willa Jo Zollar, founding artistic director of Urban Bush Women, an all-female African-American dance company, who will be performing Zollar Uncensored. Seminar participants will also attend the conference Continuously Rich: Legacies of Black Women Artists in American Concert Dance, organized by the Department of Theatre Arts and Dance. Jeannine Ferguson has been teaching courses on modern and postmodern culture since 1986 largely focusing on the construction of cultural identity as articulated through various artistic media.

HSEM 3047H Honors Seminar: Culture and Identity: Balkan Sounds and Images
A-F only, 3 credit(s), max credits 6; prereq [Jr or sr] honors student; Meets CLE req of Global Perspectives;
Instructor: Currie, Gabriela
Description: Snatches of a half-remembered but somehow familiar melody echo in the soundscapes of contemporary Balkan pop. Whose song is this anyway? Is it Greek or Turkish? Macedonian, Serbian, Albanian, Bulgarian? Does it really matter? To whom and why? This course will explore the intersection between the nationalist politics, (post)communist ideologies, local historical narratives, and musical traditions in South-Eastern Europe. It will address larger issues of transnationalism, ethnic and religious identity, population exchange, inter-ethnic cultural relations, and (mis)construction of history as reflected in the musical practices of both rural and urban Balkan communities. Readings, films, and musical selections offer students a socio-cultural lens through which to consider the recent troubled history of South-Eastern Europe, as well as the struggles and aspirations of its peoples reflected in the expressive cultural forms they have created. Gabriela Currie is Assistant Professor in the School of Music; her interests and publications range from the pre-modern history of science and musical thought, musical iconography from Eastern Europe to Central Asia, to musical traditions along the Silk Road in the socio-political and historical context. She is currently working on two book projects on the medieval scholastic musical cosmologies and the transcultural medieval Silk Road commerce in the Byzantine and Ottoman Empires, respectively.

HSEM 3049H Honors Seminar: From Atoms and Void to the Enjoyment of Life
A-F only, 3 credit(s), max credits 6; prereq [Jr or sr] honors student;
Instructor: Lewis, Douglas E
Description: In today's language an epicurean is a person devoted to sensual enjoyment, especially that of fine and expensive food and drink. Epicurus taught the opposite: how to take pleasure in simple fare like bread and water (with, occasionally, a sumptuous meal). Enjoyment is not indulgence of the senses, but absence of fear (of death and of the gods, for example) and of unfulfilled desires. In this seminar we will study these teachings along with their theoretical basis: the doctrine of atoms and void. Warning: study of epicureans can be life changing! We will read (1) the extant fragments (of which there aren't many) of the Greek philosopher Epicurus (c341-271 BCE), (2) the poem (in prose translation) De rerum natura? Of the nature of things) by the Roman epicurean Titus Lucretius Carus (c100-55 BCE), and (3) contemporary commentary on epicurean philosophy. Douglas Lewis's research interests include early modern philosophy (16th, 17th, 18th c. metaphysics, theory of knowledge, ethics, politics) and its recent (20th, 21st c.) development and critique. He is particularly interested in women philosophers of the early modern period. He has published work on Marie de Gournay, Baruch Spinoza, and John Locke from the earlier period and G. E. Moore and Simone de Beauvoir from the later.

HSEM 3051H Honors Seminar: Culture as Politics: Hollywood at Home and Abroad
A-F only, 3 credit(s), max credits 6; prereq [Jr or sr] honors student;
Instructor: May, Lary L
Description: How does one understand the relation of the popular arts to politics in the United States and foreign lands? This seminar will explore the fusion of political values and the contested identities that inform the world mass, global communications, at the point of production and reception, and the methods and theories that scholars have used to explain that process. We will examine that fusion by exploring the lives and politics of artists from John Wayne to Jane Fonda, Oliver Stone to Ingmar Bergman. Throughout we will compare and contrast the production and reception of Hollywood films in the United States and foreign lands. Students will be asked to present oral reports that fuse their family history, favorite items of popular art, and politics. Lary May is Morse-Alumni Distinguished Teaching Professor of American Studies and History at the University where he has been on the faculty thirty years. He has published three major books: Screening Out the Past: The Birth of Mass Culture and the Motion Picture Industry (Oxford University Press, 1980), Recasting America: Culture and Politics in the Age of Cold War (University of Chicago Press, 1990), and The Big Tomorrow: Hollywood and the Politics of the American Way (University of Chicago Press, 2000). Currently he is working on a book tentatively entitled Bringing It All Back Home: Global Hollywood and America's Cultural Wars. Professor May's interests in these subjects derive from his work on a Hollywood movie after receiving his B.A. from George Washington University, and his conviction that the popular arts provide a new source for understanding cultural and political changes in twentieth century America and its place in the world.

HSEM 3205H Honors Seminar: Living with the Mississippi
A-F only, 3 credit(s), max credits 6; prereq [Jr or sr] honors student; Meets CLE req of Environment;
Instructor: Nummally, Patrick
Description: Living with the Mississippi? gathers students from diverse colleges across the University and engages them with the Mississippi River's challenges in a way that allows them to produce a body of work that is directly relevant to the work of planning, policy-making, research and design toward a sustainable Mississippi River. Given projections for population growth and climate change, we will be asking more of the Mississippi than ever before over the coming decades, and our historical approach?to treat it as an engineered body of water completely subject to our short term needs?will not suffice. Working collectively, biological and physical scientists, planners, designers, advocates, and people involved in public interpretation and education must develop a 21st century approach to living with the urban Mississippi that values the river as a community, environmental, and economic asset without diminishing the river's key ecological functions upon
which we depend. Students in this course will combine knowledge from natural and social sciences with policy, planning, and design frameworks to develop realistic, potentially feasible solutions to river-related challenges posed by community partners. During the course of his career in academia and as a practitioner, Patrick Nunnally has specialized in researching, teaching, and managing projects that celebrate the multiple connections between people and the places they value. In addition to his public sector experience, Nunnally serves on the faculty of the University of Minnesota, teaching classes in landscape planning and urban studies, and coordinating the River Life Program through the Institute on the Environment. Documenting, preserving and celebrating the cultural heritage of the Upper Mississippi River and its valley has been the cornerstone of Nunnally’s work since the mid 1990s.

HORT 1001 Plant Propagation
4 credit(s); Meets CLE req of Biological Sciences;
Instructor: Michaels, Thomas E
Description: A lot of you who are consulting this course guide are probably looking for a lib ed biology credit and wondering whether this course is a good choice. I’ll tell you a bit about the course, and then you can figure out whether it is a good fit for you. <P> First, a warning: I really enjoy teaching this course and I suppose I could be accused of being overenthusiastic. There’s something viral about this course that infects many students and you’ll catch it too. You’ll transform into a bit of a plant geek, excitedly describing cool things about plants to friends and family in embarrassing detail. <P> Plant Propagation immerses you in learning the fundamental biological concepts of plant structure, growth and reproduction, and challenges you to apply these concepts in the greenhouse to hands-on plant propagation. By the end of the course, we expect that you will know how to describe plant parts and their cellular structures through illustrations and by using the language of biology (meaning there’s a lot of terminology). You will be able to recognize and document these plant parts and structures in the world around you and know examples of how they relate to your life. You will know how to use scientific ways of inquiry to investigate questions and how to make science-based decisions. You will know how to successfully propagate plants using several different methods. <P> Pay close attention to this next bit and make sure it is copacetic with your learning style: The lecture content for this course will be delivered primarily on-line through the use of audio, video, text and discussions hosted on WebVista and Moodle. You MUST have reliable internet access several times each week to access lecture materials and the capacity to listen to downloaded mp3 lecture companion podcasts. You MUST have weekly access to a rudimentary digital camera (it doesn’t have to be fancy), and the ability to upload to UThink blogs. The most important thing though is that you MUST have the self-discipline to set aside specific times every week to work through the online lecture material just as if you were going to a conventional lecture. <P> The labs have about 30 students in each section and are taught in a conventional, face-to-face format on the St. Paul campus in a great greenhouse facility. <P> You will also have a required face to face class meeting at 11:45am on your scheduled laboratory day if you are in a Tuesday or Thursday lab, or held prior to your lab if you choose the Wednesday evening lab. The class meeting is also in St. Paul and is an opportunity for us to further explore the on-line lecture subjects, for exams and other learning activities. <P> Even though the lectures are on-line, the labs and class meetings provide a sense of community among instructors and students. <P> Click on the Course URL for more information, view a video and see examples of lectures and assignments.

Style: 30% Laboratory, 10% Demonstration, 60% Web Based.
Lectures are delivered on-line via WebVista and Moodle with mp3 lecture companion podcasts

Grading: 37% mid exam, 8% final exam, 25% reports/papers, 10% quizzes, 10% written homework, 10% laboratory evaluation.
Reports and Papers are associated with the laboratory projects. These percentages are approximations to assist with your registration planning.

Exam Format: Multiple choice, matching, draw and label diagrams, short answer, brief essay. Final will be comprehensive. These formats are approximations to assist with your registration planning.

HORT 1015 Woody and Herbaceous Plants
A-F only, 4 credit(s);
Instructor: Hokanson, Stan C
Description: Student may contact the instructor or department for information.

HORT 1015 Woody and Herbaceous Plants
A-F only, 4 credit(s);
Instructor: Hokanson, Stan C
Description: During this course you will master the skills that will allow you to identify plants from around the world. By the end of the term, you will have been introduced to a few hundred of the most important herbaceous and woody cultivated plants for northern climates. You will learn their distinguishing features for identification, common uses, cultural specifics, and notable cultivars. In addition to the regular class sessions, there will be one Saturday field trip during the term.

Style: 31% Lecture, 69% Laboratory.
Grading: 58% mid exam, 28% reports/papers, 14% quizzes.
Exam Format: fill in the blank, short answers

HORT 1031 Vines and Wines: Introduction to Viticulture and Enology
OPT No Aud, 3 credit(s); prereq 21 yrs of age by date of 1st class meeting;
Instructor: Luby, James Joseph
Description: This course is an introduction to the principles of growing grapes (viticulture), making wine (enology), and an appreciation of the historical, geographical and sensory diversity of wine. The course is taught in part with 20 to 50 minute online lectures (Adobe Presenter) format. Usually 2 or 3 of these are covered each week. The class also meets one evening each week for a combination lecture/sensory session. There is one field trip to a local winery scheduled during the regular weekly class time. Upon completion of this course, each student will understand and have a working knowledge of the following concepts: 1. The process of fermentation and its role in wine production. 2. Fundamental principles of biology and culture of the grapevine. 3. Types of wine and their production differences. 4. The major grape-growing regions of the world, the most important grape cultivars in each region, and the characteristics of the wines produced in these regions. 5. Systematic evaluation of wine sensory characteristics. 6. Commercial wine labels and the information they provide. 7. The basic aspects of plant anatomy, using the grapevine as a model. 8. The major genetic factors in grapes that contribute to wine quality. 9. How cultural and environmental factors affect wine quality and yield. 10. Selection, planting, and cultivation of grapevines in a home garden. 11. Current issues involving wine and human health. 12. Current social and legal issues involving wine.

Style: 15% Lecture, 15% Discussion, 10% Small Group Activities, 5% Field Trips, 10% Guest Speakers, 40% Web Based.
Grading: 20% special projects, 56% quizzes, 16% written homework, 4% in-class presentation, 4% other evaluation.

HORT 1061 The Sustainable Lawn
3 credit(s);
Instructor: Watkins, Eric
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid information. Millions of acres across the United States are devoted to turfgrass. Home lawns, parks, athletic fields, golf course, and other turf areas play an important role in environmental quality. Homeowners have little knowledge about

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
HORT 2100 Agricultural Biochemistry
A-F only, 3 credit(s); prereq CHEM 1011 or [1015, Concurrent registration is required (or allowed) in 1017] or CHEM 1021 or instr consent
Instructor: Hegeman, Adrian D
Description: This course provides a fundamental chemical and biochemical foundation needed to master biotechnological topics as growing part of agricultural disciplines. Subject matter emphasizes qualitative understanding of key concepts in organic, analytical and biological chemistry with special emphasis on the chemistry, metabolism and development of plants
Style: 100% Lecture.
Grading: 30% mid exam, 30% final exam, 30% quizzes, 10% attendance.
Exam Format: multiple choice and short answer

HORT 3090 Directed Studies
2-12 credit(s), max credits 72, 6 completions allowed; prereq Nonfr, instr consent
Instructor: STAFF
Description: Approved field, lab or greenhouse experiences in application of horticultural information and practices.

HORT 4015 Advanced Woody and Herbaceous Plant Topics:
Wetland and Aquatic Plants
A-F only, 1 credit(s), max credits 7, 7 completions allowed; prereq 1015
Instructor: Galatowitsch, Susan M
Description: This course expands on basic identification skills to include aquatic plants that are used in restoration, landscaping, rainwater gardens, and water gardens. Students in this class will learn how to distinguish between important aquatic plants and explore their uses and cultural requirements. Workload: this is an intensive course that meets daily for several hours. Outside class time, students need to commit an equal amount of time to learn what was covered in each session.
Style: 100% Field Trips.
Grading: 100% tests
Exam Format: Exam format; fill in the blank, short answer

HORT 4016 Turfgrass Management
A-F only, 3 credit(s); prereq 1001 or instr consent; Meets CLE req of Writing Intensive
Instructor: Watkins, Eric
Description: This course will focus on the basics of turfgrass management. Students will learn the basic principles of turfgrass growth and development, establishment, fertilization, mowing, cultivation, and irrigation. Students will also be trained in turfgrass species identification and common turfgrass management calculations.
Style: 45% Lecture, 15% Discussion, 20% Laboratory, 5% Small Group Activities, 5% Student Presentation, 5% Guest Speakers, 5% Web Based.
Grading: 20% mid exam, 15% final exam, 25% reports/papers, 10% special projects, 10% quizzes, 5% in-class presentation, 5% class participation, 10% laboratory evaluation.
Exam Format: short answer, essay

HORT 4017 Applications of Biotechnology to Plant Improvement
4 credit(s); prereq [Biol 1009 or equiv or grad student], instr consent; Meets CLE req of Writing Intensive
Instructor: Smith, Alan G
Description: Student may contact the instructor or department for information.
HORT 4096 Professional Experience Program: Internship
S-N only, 1 credit(s), max credits 2; prereq CFANS undergrad, instr consent, completed internship contract; Instructor: STAFF
Description: This course provides an opportunity for professional experience in horticulture businesses, government agencies, arboreta, and botanical gardens achieved through a supervised practical experience. Must work a minimum of 250 hours. Hort 4096 may be repeated once for a total of 2 credits. Credit for the internship will only be granted after successful completion of one of the following projects: A. Write a 4-5 page paper detailing your internship experience. The focus of the paper should be determined in consultation with your advisor. B. Present a public seminar on your internship. C. Publish a webpage about your internship.
Grading: S/N only

HORT 4141W Nursery Management
A-F only, 4 credit(s); prereq 1001 or 1015 or instr consent; Meets CLE req of Writing Intensive; Instructor: Gillman, Jeffrey E; APEC 4461; Credit will not be granted if credit has been received for: APEX 4461; Instructor: Yue, Chengyan
Description: This course examines several major areas in horticultural marketing. First, we will introduce the difference between horticultural products and commercial commodities and what is special about horticultural marketing; Second, we analyze the functions performed by the horticultural marketing system. We analyze the marketing behavior of horticultural businesses (farms, wholesalers, garden centers) and cover the core marketing components that should be used by every small horticultural business; Finally, the basic approaches of consumer research (survey techniques, and non-hypothetical experimental approaches, etc.) will be introduced. The recommended textbook is Solomon, Michael R. and Elnora Stuart. 2003. Marketing: Real People, Real Choices, 3rd Ed. This course will consist of lectures, discussions, and student projects and presentations. Students will work on the projects in small group teams of three or four. The target audience is undergraduate students and master of agriculture students.
Style: 60% Lecture, 40% Discussion.
Grading: 30% mid exam, 20% final exam, 15% reports/papers, 10% quizzes, 20% in-class presentation, 5% class participation.
Exam Format: Multiple choice and short answer questions.

HORT 4461 Horticultural Marketing
A-F only, 3 credit(s); prereq APEC 1101 or ECON 1101; Credit will not be granted if credit has been received for: APEC 4461; Instructor: Yue, Chengyan
Description: This course examines several major areas in horticultural marketing. First, we will introduce the difference between horticultural products and commercial commodities and what is special about horticultural marketing; Second, we analyze the functions performed by the horticultural marketing system. We analyze the marketing behavior of horticultural businesses (farms, wholesalers, garden centers) and cover the core marketing components that should be used by every small horticultural business; Finally, the basic approaches of consumer research (survey techniques, and non-hypothetical experimental approaches, etc.) will be introduced. The recommended textbook is Solomon, Michael R. and Elnora Stuart. 2003. Marketing: Real People, Real Choices, 3rd Ed. This course will consist of lectures, discussions, and student projects and presentations. Students will work on the projects in small group teams of three or four. The target audience is undergraduate students and master of agriculture students.
Style: 60% Lecture, 40% Discussion.
Grading: 30% mid exam, 20% final exam, 15% reports/papers, 10% quizzes, 20% in-class presentation, 5% class participation.
Exam Format: Multiple choice and short answer questions.

HORT 5052 Specialty Greenhouse Crop Production
A-F only, 3 credit(s); prereq 1001, 1015, 3002; Instructor: Erwin, John E
Description: Students will learn the art and science of growing potted floriculture crops and greenhouse vegetable crops. Emphasis is placed on understanding the science of production, hands-on cultivation of crops, experimentation to answer production questions, plant identification and visiting production greenhouses.
Style: 40% Lecture, 20% Discussion, 40% Laboratory.
Grading: 50% final exam, 40% laboratory evaluation, 10% other evaluation.
Exam Format: Essay

HORT 5071 Restoration and Reclamation Ecology
4 credit(s); prereq [One college course in ecology, one college course in [plant science or botany]] or instr consent; Instructor: Galatowitsch, Susan M
Description: Ecological and physiological concepts are explored as a basis for regenerating grasslands, wetlands, forests and other landscapes. The extent to which restorations have succeeded or failed is often a reflection of the state of our understanding of ecological processes. Half of the course introduces students to the ecological and physiological concepts relevant to land restoration and reclamation. Readings from the primary literature are used to illustrate how restoration and reclamation efforts apply an ecological and/or physiological concept. Students discuss the extent to which land restoration and reclamation. Readings from the primary literature are used to illustrate how restoration and reclamation efforts apply an ecological and/or physiological concept. Students discuss the extent to which land restoration has depended on scientific predictions vs. trial and error to develop cultural practices. The other half of the course provides students with in-depth view of the restoration of specific kinds of ecological communities. For each eco-region, students are provided with information on the history of restoration, the impetus for restorations (cultural, political), and the range of restoration practices and desired outcomes, and major limitations to success. Field visits are scheduled for the first half of the course.
Style: 60% Lecture, 20% Discussion, 20% Laboratory.
Grading: 30% mid exam, 40% final exam, 30% reports/papers.
Exam Format: MC and essay

HORT 5090 Directed Studies
1-6 credit(s), max credits 18, 18 completions allowed; prereq 8 cr upper div Hort courses, instr consent; Instructor: STAFF
Description: Opportunities for in-depth exploration of concepts, technology, materials, or programs in specific areas to expand professional competency and self-confidence. Planning, organizing, implementing, and evaluating knowledge obtained from formal education and experience.

HORT 6002 Problem Solving in Horticulture
S-N only, 2-4 credit(s), max credits 4, 1 completion allowed; prereq Completion of 18 cr in master of agriculture in horticulture program or instr consent; Instructor: Gillman, Jeffrey E
Description: This course is a collaborative problem-solving experience, designed and completed by the students with guidance from a faculty instructor. The purpose is to expose students to real-world problems in horticulture, have them identify the main biological, design and social and business sustainability issues related to the problems, and to develop solutions as an interdisciplinary team of 2-4 scholars to address these problems. Students will identify a research problem in consultation with the faculty and a public or private sector organization involved in a facet of horticulture. Students will apply principles and methodologies they learned from coursework and their prior professional experience to address the problem. This may involve a mix of empirical research methods from the horticulture and other natural and social sciences, design and business analyses, as well as concepts and methods of societal delivery and policy analysis.
Style: Initially as weekly meetings for 3 hours to plan and start-up the research, then agreed-upon schedule
Grading: The course grade will be based on a portfolio document and presentation prepared as a public seminar. Students will describe the contributions of each group member to development of the final portfolio.

HORT 8005 Supervised Classroom or Extension Teaching Experience
S-N only, 2 credit(s); prereq instr consent; Instructor: Hoover, Emily E
Description: Student may contact the instructor or department for information.

HORT 8007 Extension Horticulture Practicum
1-5 credit(s), max credits 5, 1 completion allowed; prereq 9 grad cr in [ag or bio] science, instr consent; Instructor: Luby, James Joseph
Description: Student may contact the instructor or department for information.
**Horticulture**

**HORT 8090 Graduate Horticulural Research**
1-12 credit(s), max credits 18, 18 completions allowed; prereq instr consent; Instructor: Luby, James Joseph
Description: Student may contact the instructor or department for information.

**HORT 8270 Graduate Seminar**
A-F only, 1 credit(s); prereq Grad major in [hort or applied plant sciences or ent or agro or plnt brdg or plnt path or soil] or instr consent; Credit will not be granted if credit has been received for: AGRO 8270; Instructor: Wyse, Donald L
Description: Student may contact the instructor or department for information.

**HORT 8900 Advanced Discussions**
S-N only, 1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent; Credit will not be granted if credit has been received for: AGRO 8900; Instructor: Luby, James Joseph
Description: Student may contact the instructor or department for information.

**Housing Studies**

240 McNeal Hall

**HSG 2196 Work Experience in Housing Studies**
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent; Instructor: Ziebarth, Ann
Description: Student may contact the instructor or department for information.

**HSG 2196 Work Experience in Housing Studies**
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent; Instructor: Yust, Becky L
Description: Student may contact the instructor or department for information.

**HSG 2196 Work Experience in Housing Studies**
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent; Instructor: Crump, Jeffrey R
Description: Student may contact the instructor or department for information.

**HSG 2196 Work Experience in Housing Studies**
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent; Instructor: Crump, Jeffrey R
Description: Student may contact the instructor or department for information.

**HSG 2401 Introduction to Housing**
A-F only, 3 credit(s); prereq credit will not be granted if credit already received for: DHA 2401; Instructor: Ziebarth, Ann
Description: Housing is more than “protection from the elements”. House and home have social, economic and psychological implications. This course is designed to develop an understanding of and appreciation for the complexity of housing. The goal is to familiarize you with housing as a process and a product in the context of the individual, the family, and the community. Topics addressed include: an introduction to housing studies, architectural styles and preferences, residential construction methods and components, housing finance (buying a home), housing markets, social and psychological aspects of home, and government laws, policies, and regulations. This course is designed for undergraduates, but is open to anyone.

Students who are Housing Studies majors and those seeking a minor in Housing Studies are required to complete this course as part of the program core. The course will be web enhanced with a web Vista page that is available to registered students.

Style: 75% Lecture, 25% Discussion. 5% in-class activities
Grading: 25% mid exam, 25% final exam, 40% written homework, 10% class participation.
Exam Format: essay, short answer, some multiple choice, problem solving

**HSG 2463 Housing and Community Development**
A-F only, 3 credit(s); prereq credit will not be granted if credit already received for: DHA 2463; Instructor: Crump, Jeffrey R
Description: This course is an examination of the linkages between housing and community development. The process of residential neighborhood change and the impact of housing on neighborhood conditions will also be explored. The course considers theories of neighborhood change, trends in residential development, and ideas of community building. Private sector, community-based, and governmental efforts at neighborhood revitalization and their effectiveness will be studied. Related issues such as racial discrimination in housing, gentrification and the displacement of low-income residents will be studied. This course also incorporates a community-based learning component. Specific course goals include: 1. Develop an understanding of linkages between housing and the broader community. 2. Develop an appreciation of the linkages between housing and quality of life. 3. Develop an awareness of the connections between housing and social justice.
Style: 40% Lecture, 20% Discussion. Community based learning
Grading: 20% final exam, 30% quizzes, 10% class participation, 40% other evaluation. Community based learning
Exam Format: Essay

**HSG 4160H Honors Capstone Project**
A-F only, 2 credit(s), max credits 4; prereq Housing studies honors; Instructor: Ziebarth, Ann
Description: Student may contact the instructor or department for information.

**HSG 4160H Honors Capstone Project**
A-F only, 2 credit(s), max credits 4; prereq Housing studies honors; Instructor: Yust, Becky L
Description: Student may contact the instructor or department for information.

**HSG 4160H Honors Capstone Project**
A-F only, 2 credit(s), max credits 4; prereq Housing studies honors; Instructor: Crump, Jeffrey R
Description: Student may contact the instructor or department for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
HSG 4193 Directed Study in Housing Studies
A-F only, 1-4 credit(s), max credits 8; prereq Undergrad, instr consent;
Instructor: Ziebarth, Ann
Description: Student may contact the instructor or department for information.

HSG 4193 Directed Study in Housing Studies
A-F only, 1-4 credit(s), max credits 8; prereq Undergrad, instr consent;
Instructor: Angell, William J
Description: Student may contact the instructor or department for information.

HSG 4193 Directed Study in Housing Studies
A-F only, 1-4 credit(s), max credits 8; prereq Undergrad, instr consent;
Instructor: Yust, Becky L
Description: Student may contact the instructor or department for information.

HSG 4196 Internship in Housing Studies
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq Completion of at least one-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent credit will not be granted if credit already received for: DHA 4196; Credit will not be granted if credit has been received for: ADES 4196;
Instructor: Crump, Jeffrey R
Description: Student may contact the instructor or department for information.

HSG 4196 Internship in Housing Studies
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq Completion of at least one-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent credit will not be granted if credit already received for: DHA 4196; Credit will not be granted if credit has been received for: ADES 4196;
Instructor: Bruin, Marilyn J
Description: Student may contact the instructor or department for information.

HSG 4196 Internship in Housing Studies
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq Completion of at least one-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent credit will not be granted if credit already received for: DHA 4196; Credit will not be granted if credit has been received for: ADES 4196;
Instructor: Ziebarth, Ann
Description: Student may contact the instructor or department for information.

HSG 4196 Internship in Housing Studies
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; prereq Completion of at least one-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent credit will not be granted if credit already received for: DHA 4196; Credit will not be granted if credit has been received for: ADES 4196;
Instructor: Yust, Becky L
Description: Student may contact the instructor or department for information.

HSG 4467W Housing and the Social Environment
A-F only, 4 credit(s); prereq 2401 or DHA 2401 or inst
Description: Credit will not be granted if credit already received for: DHA 5467W; Meets CLE req of Writing Intensive;
Instructor: Yust, Becky L
Description: Why do households differ in what housing they can afford, where they want to live, the types of housing that appeal to them, and how their needs change over their lives? This course explores these issues from the perspective of the household members within our social system and the constraints that keep them from achieving the housing that they consider appropriate for them. With an emphasis on the special needs, for example, of elderly persons, minorities, large families, female-headed households, and low-income households, the course is intended to challenge students to develop their own ideas about housing and requires research work, data interpretation, and independent thinking. The assignments are flexible enough to permit students to use the strength of their individual backgrounds and interests to advantage in the class. For example, if you have experience in some specific aspect of housing or with a particular type of household, you will be able to focus on those aspects about which you are knowledgeable and explore them in more depth. There are two major projects in the class. One, a paper (about 15 pages), builds from assignments during the semester to analyze the characteristics and needs of a type of household, the constraints they face in finding housing, and options available to satisfy their housing needs. The second major project is a survey of residents who live in a multifamily housing development in the Twin Cities. Using the research techniques of post-occupancy evaluation, students tour the site (transportation provided), do site observations, create a questionnaire for distribution to the residents, analyze the data, and summarize the results. Through these two projects, students are equipped to understand housing needs of households and how programs and policies can work to support their needs.
Grade: 70% Lecture, 10% Discussion, 10% Small Group Activities, 10% Student Presentation;
Grading: 25% mid exam, 13% final exam, 44% reports/papers, 6% in-class presentation, 12% class participation.
Exam Format: multiple choice
HSG 5193 Directed Study in Housing Studies
A-F only, 1-4 credit(s), max credits 8; prereq Jr or sr or grad student;
Instructor: Angell, William J
Description: Student may contact the instructor or department for information.

HSG 5193 Directed Study in Housing Studies
A-F only, 1-4 credit(s), max credits 8; prereq Jr or sr or grad student;
Instructor: Crump, Jeffrey R
Description: Student may contact the instructor or department for information.

HSG 5193 Directed Study in Housing Studies
A-F only, 1-4 credit(s), max credits 8; prereq Jr or sr or grad student;
Instructor: Bruin, Marilyn J
Description: Student may contact the instructor or department for information.

HSG 5467 Housing and the Social Environment
A-F only, 4 credit(s); prereq Grad student credit will not be granted if credit already received for: DHA 5467W;
Instructor: Yust, Becky L
Description: Why do households differ in what housing they can afford, where they want to live, the types of housing that appeal to them, and how their needs change over their lives? This course explores these issues from the perspective of the household members within our social system and the constraints that keep them from achieving the housing that they consider appropriate for them. With an emphasis on the special needs, for example, of elderly persons, minorities, large families, female-headed households, and low-income households, the course is intended to challenge students to develop their own ideas about housing and requires research work, data interpretation, and independent thinking. The assignments are flexible enough to permit students to use the strength of their individual backgrounds and interests to advantage in the class. For example, if you have experience in some specific aspect of housing or with a particular type of household, you will be able to focus on those aspects about which you are knowledgeable and explore them in more depth. There are two major projects in the class. One, a paper (about 15 pages), builds from assignments during the semester to analyze the characteristics and needs of a type of household, the constraints they face in finding housing, and options available to satisfy their housing needs. The second major project is a survey of residents who live in a multifamily housing development in the Twin Cities. Using the research techniques of post-occupancy evaluation, students tour the site (transportation provided), do site observations, create a questionnaire for distribution to the residents, analyze the data, and summarize the results. Through these two projects, students are equipped to understand housing needs of households and how programs and policies can work to support their needs.
Style: 70% Lecture, 10% Discussion, 10% Small Group Activities, 10% Student Presentation.
Grading: 25% mid exam, 13% final exam, 44% reports/papers, 6% in-class presentation, 12% class participation.
Exam Format: multiple choice

HSG 8192 Readings in Housing Studies
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Angell, William J
Description: Student may contact the instructor or department for information.

HSG 8192 Readings in Housing Studies
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Crump, Jeffrey R
Description: Student may contact the instructor or department for information.

HSG 8192 Readings in Housing Studies
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Bruin, Marilyn J
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Yust, Becky L
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Angell, William J
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Crump, Jeffrey R
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Bruin, Marilyn J
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Yust, Becky L
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Angell, William J
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Crump, Jeffrey R
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Bruin, Marilyn J
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Angell, William J
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Crump, Jeffrey R
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Bruin, Marilyn J
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Yust, Becky L
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Angell, William J
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Crump, Jeffrey R
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Bruin, Marilyn J
Description: Student may contact the instructor or department for information.

HSG 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Yust, Becky L
Description: Student may contact the instructor or department for information.
**Schedule.**

Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online University of Minnesota - Course Guide for Twin Cities Campus Fall 2010.

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**Human Factors**

1100 Mechanical Engineering

**HUMF 5001 Foundations of Human Factors/Ergonomics**
A-F only, 3 credit(s); prereq Enrollment in good standing, grad HumF minor; Credit will not be granted if credit has been received for: KIN 5001;

Instructor: Smith,Thomas J

Description: The course will address these issues in the following contexts: Consumer Product Design; Cognitive Performance and Learning, Psychomotor Performance, Behavioral Cybernetics of Human Performance; Effects of Perturbed Sensory Feedback on Performance; Machine and Tool Performance; Interactive Performance with Complex Technological Systems (Human/Computer; Human/Robot); Occupational Performance and Safety; Social and Team Performance; Organizational Performance; and Performance of Complex Sociotechnical Systems (Aerospace, Educational, Manufacturing, Transportation, Community and Health Systems. Field tours of selected private sector operations are provided to complement classroom activities. Course assignments encompass a series of class presentations, reports, and term projects dealing with HF/E analyses of consumer product design, design of complex sociotechnical systems and job/workplace design features and issues. The course represents the core course in the campus-wide, interdisciplinary Human Factors Minor Program, and is intended for graduate and upper-level undergraduate students with an interest in the conceptual and practical aspects of HF/E science.

Style: 40% Lecture, 10% Discussion. student team presentations & field trips

**HUMF 5211 Human Factors and Work Analysis**
A-F only, 4 credit(s); Credit will not be granted if credit has been received for: IE 5511;

Instructor: Hayes,Caroline Clarke

Description: Student may contact the instructor or department for information.

**HUMF 8001 Special Topics: Human Factors/Ergonomics**
2-3 credit(s), max credits 3, 1 completion allowed; prereq Enrollment in good standing, grad HumF minor;

Instructor: Smith,Thomas J

Description: Student may contact the instructor or department for information.

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**Human Resource Development**

330 Wulling Hall

**HRD 3001 Introduction to Human Resource Development**
3 credit(s);

Instructor: Fritsch,Jocelyn M

Description: This course provides an introduction to human resource development (HRD) theories, principles, concepts, and practices. Upon completion of the course, students will be able to: Describe the economic, political, cultural, and technological forces impacting HRD; Explain HRD as discipline, a professional field of practice, and its history; Discuss the theory and philosophy of HRD and contrast the alternative perspectives; Describe the development of human expertise through personnel training and development; Explain how organization development contributes to improved organizational effectiveness in the face of change; Define the forces shaping human resource development in the 21st century (e.g., career development, strategic roles, accountability, globalization, and technology).

**HRD 3196 Professional Practice of Human Resource Development**
2 credit(s); prereq 3001, 3201, 3301, ADED 3101, HRD BS major;

Instructor: Helm,Charles Andre

Description: Student may contact the instructor or department for information.

**HRD 3201 Introduction to Training and Development**
A-F only, 3 credit(s);

Instructor: Bialek,Tani Keentlyne

Description: This course is an introduction to the training and development profession and familiarizes students with concepts, models, theories, and techniques for instructional design. Students will develop skills and competencies necessary to carry out a variety of instructional design roles and strategies for implementing the instructional design process in a systematic way.

**HRD 3201 Introduction to Training and Development**
A-F only, 3 credit(s);

Instructor: Sisk,Meg

Description: Student may contact the instructor or department for information.

**HRD 3301 Introduction to Organization Development**
3 credit(s); prereq Undergrad;

Instructor: Bartlett,Kenneth Russell

Description: Student may contact the instructor or department for information.

**HRD 3301 Introduction to Organization Development**
3 credit(s); prereq Undergrad;

Instructor: Massaglia MA,Vic

Description: This course in an introduction to the fundamentals of organization development (OD) and will examine theories, models, and practices used for strategic change in the development of organizations.

Style: 25% Lecture, 25% Discussion, 25% Small Group Activities, 10% Demonstration, 15% Guest Speakers.

**HRD 4196 Internship: Human Resource Development**
S-N only, 1-10 credit(s), max credits 10, 1 completion allowed; prereq 3001, 3201, 3301, 3196, ADED 3101;

Instructor: Snyder,Lynn M

Description: Student may contact the instructor or department for information.

**HRD 4302 Managing Work Teams**
A-F only, 3 credit(s); prereq Two core courses in HRD;

Instructor: Clemmer,Gary F

Description: Student may contact the instructor or department for information.
HRD 4627 Management and Supervisory Development
3 credit(s); Credit will not be granted if credit has been received for: BIE 5627;
Instructor: Christesen PhD,David Allen
Description: Student may contact the instructor or department for information.

HRD 5101 Foundations of Human Resource Development
1 credit(s);
Instructor: Opal,Brent S
Description: Student may contact the instructor or department for information.

HRD 5102 Economic Foundation of Human Resource Development
1 credit(s); prereq 5101;
Instructor: Pittelkow,Jill Louise
Description: Student may contact the instructor or department for information.

HRD 5103 Psychological Foundation of Human Resource Development
1 credit(s); prereq 5101;
Instructor: Park,Sunyoung
Description: Student may contact the instructor or department for information.

HRD 5104 Systems Foundation of Human Resource Development
1 credit(s); prereq 5101;
Instructor: Yawson,Robert Mayfield
Description: This course is designed to provide participants with the basic framework for thinking about the main topic areas in systems theory and systemic thinking in Human Resource Development (HRD). Through the use of small groups, personal investigation, and other online instructional strategies, participants will examine topics including: the theoretical foundations of HRD; the systems component of HRD; the relationship among HRD theory, practice, and research from a systems perspective; and analytical tools available for systems theory, thinking, and modeling. An important part of the course will involve developing an understanding of what “systems theory” and “systemic thinking” mean in the context of HRD. HRD 5104 is a journey in the realm of systems. The applications of systems theory and systems thinking in HRD have been evolving overtime and it continues to evolve. The real intent of HRD 5104 is not to study systems as a discipline, though more an intent to study lots of things and employ a systems perspective to foster understanding in HRD. Agreed, this requires some understanding of systems. As such, this class is structured in a way to enable one to develop a level of understanding sufficient to achieve the objectives of using systems theory and systemic thinking in HRD.

HRD 5111 Facilitation and Meeting Skills
1 credit(s);
Instructor: Massaglia MA,Vic
Description: This course provides an introduction to planning and facilitating effective meetings. It examines tools and methods for managing meetings, agendas, logistics, small group interventions, meeting evaluation, roles and responsibilities of participants. Effective decision making and facilitating conflict will also be explored.

HRD 5196 Internship: Human Resource Development
S-N only, 1-10 credit(s), max credits 10, 1 completion allowed; prereq [3001, 3196, [3201 or 3301], ADED 3101, undergrad] or [[5201 or 5301], WHRE 5001, grad student], instr consent ;
Instructor: Peterson,Shari L
Description: Student may contact the instructor or department for information.

HRD 5201 Training and Development of Human Resources
A-F only, 3 credit(s); prereq Grad student only;
Instructor: Christesen PhD,David Allen
Description: Student may contact the instructor or department for information.

HRD 5301 Organization Development
A-F only, 3 credit(s); prereq Grad student only;
Instructor: Christesen PhD,David Allen
Description: Student may contact the instructor or department for information.

HRD 5408 International Human Resource Development
3 credit(s);
Instructor: Ardichvili,Alexandre A
Description: Student may contact the instructor or department for information.

HRD 5409 Planning and Decision-Making Skills
1 credit(s);
Instructor: Knap,Randall Joseph
Description: Student may contact the instructor or department for information.

HRD 8201 Advanced Training and Development of Human Resources
A-F only, 3 credit(s); prereq 5201;
Instructor: Bartlett,Kenneth Russell
Description: Student may contact the instructor or department for information.

Human Resources and Industrial Relations
3-300 Carlson School of Management

HRIR 3021 Human Resource Management and Industrial Relations
3 credit(s); prereq ECON 1101, ECON 1102, PSY 1001; Credit will not be granted if credit has been received for: HRIR 8021;
Instructor: Benraouane,Sid A.
Description: Student may contact the instructor or department for information.

HRIR 3021 Human Resource Management and Industrial Relations
3 credit(s); prereq ECON 1101, ECON 1102, PSY 1001; Credit will not be granted if credit has been received for: HRIR 8021;
Instructor: Vellella,Rob
Description: Student may contact the instructor or department for information.

HRIR 3051 Compensation: Theory and Practice
2 credit(s); prereq [[At least 60 sem cr or 75 qtr cr], 2.00 GPA] or dept consent ;
Instructor: STAFF
Description: Introduction to compensation/reward programs in employing organizations. Theories of organizational/employee behavior used in design/implementation of pay programs. Design, implementation, and evaluation of job evaluation, salary surveys, skill-based pay, merit-based pay, and other compensation programs.

HRIR 3071 Union Organizing and Labor Relations
2 credit(s); prereq CSOM upper div undergrad major grad;
Instructor: Remington,John
Description: Student may contact the instructor or department for information.

HRIR 3072 Collective Bargaining and Dispute Resolution
2 credit(s); prereq CSOM upper div undergrad major grad;
Instructor: Remington,John
Description: Student may contact the instructor or department for information.
Description: Collective bargaining, contract administration, grievance processing, interest/rights arbitration, strikes and related policies and practices of employers, workers, and labor unions in dealing with worker representation in the private and public sectors.

HRIR 5000 Topics in Human Resources and Industrial Relations
2 credit(s); max credits 8, 4 completions allowed;
Instructor: Benraouane, Sid A.
Description: Student may contact the instructor or department for information.

HRIR 5000 Topics in Human Resources and Industrial Relations
2 credit(s); max credits 8, 4 completions allowed;
Instructor: Benraouane, Sid A.
Description: Student may contact the instructor or department for information.

HRIR 5022 Managing Diversity
2 credit(s); prereq CSOM upper div undergrad major grad;
Instructor: Leslie, Lisa
Description: Student may contact the instructor or department for information.

HRIR 5023 Employment and Labor Law for the HRIR Professional
A-F only, 2 credit(s); prereq [At least 60 sem cr or 75 qtr cr], 2.00 GPA] or grad student or instr consent;
Instructor: O'Toole, Carol Ann Berg
Description: This course covers the growing body of laws and their application to the workplace; human rights, equal employment opportunity, compensation and benefits, employee protection, and labor relations. Special issues (e.g., wrongful discharge, sexual harassment, defamation) are also discussed in the context of statute, case law, and their application to work settings.
Exam Format: True False, Multiple Choice, Short Answer

HRIR 5062 Personnel Economics
2 credit(s); prereq [ECON 1101, at least 60 sem cr, 2.00 GPA] or HRIR grad major;
Instructor: Budd, John W.
Description: Student may contact the instructor or department for information.

HRIR 8001 Business Principles for the HRIR Professional
A-F only, 4 credit(s); prereq Grad HRIR major;
Instructor: Ben-Ner, Avner
Description: Student may contact the instructor or department for information.

HRIR 8011 Using Data and Metrics in Human Resources and Industrial Relations
4 credit(s); prereq Grad HRIR major or dept consent;
Instructor: Manchester, Colleen Flaherty
Description: Student may contact the instructor or department for information.

HRIR 8023 International Human Resource Management
2 credit(s); prereq Grad HRIR major or dept consent;
Instructor: Leslie, Lisa
Description: Student may contact the instructor or department for information.

HRIR 8031 Staffing, Training, and Development
4 credit(s); prereq Psy 1001, grad HRIR major or dept consent; grad majors must enroll A-F only;
Instructor: Glomb PhD, Theresa M
Description: Student may contact the instructor or department for information.

HRIR 8031 Staffing, Training, and Development
4 credit(s); prereq Psy 1001, grad HRIR major or dept consent; grad majors must enroll A-F only;
Instructor: Tubre, Travis
Description: Student may contact the instructor or department for information.

HRIR 8032 Staffing and Selection: Strategic and Operational Concerns
2 credit(s); prereq [8031, HRIR grad student] or dept consent; HRIR grad students must register A/F;
Instructor: Leslie, Lisa
Description: Student may contact the instructor or department for information.

HRIR 8034 Employee Development: Creating a Competitive Advantage
2 credit(s); prereq 8031 or instr consent, grad HRIR major or dept consent; grad majors must enroll A-F only;
Instructor: Tubre, Travis
Description: Student may contact the instructor or department for information.

HRIR 8044 Motivation and Work Behavior in Contemporary Organizations
2 credit(s); prereq [8141, 8241] or [instr consent, [grad HRIR major or dept consent]]; grad majors must enroll A-F;
Instructor: Bourgeois, Larry David
Description: Student may contact the instructor or department for information.

HRIR 8073 Dispute Resolution: Labor Arbitration
2 credit(s); prereq 8071 or instr consent, grad HRIR major or dept consent; grad majors must enroll A-F only;
Instructor: Remington, John
Description: Student may contact the instructor or department for information.

HRIR 8101 HRIR in Practice: Strategy, Execution, and Ethics
2 credit(s); prereq 8001, 8031, 8051, 8071, 8141, 8241, HRIR grad major;
Instructor: Benraouane, Sid A.
Description: Student may contact the instructor or department for information.

HRIR 8840 Seminar: Organization Theory and Behavior
1-4 credit(s), max credits 8; prereq 8041 or instr consent, HRIR PhD student or dept consent; grad majors must enroll A-F only;
Instructor: Glomb PhD, Theresa M
Description: Student may contact the instructor or department for information.

HRIR 8840 Seminar: Organization Theory and Behavior
1-4 credit(s), max credits 8; prereq 8041 or instr consent, HRIR PhD student or dept consent; grad majors must enroll A-F only;
Instructor: Glomb PhD, Theresa M
Description: Student may contact the instructor or department for information.

Humanities
831 Heller Hall

HUM 1001 Humanities in the West I
4 credit(s); Credit will not be granted if credit has been received for: HUM 3001; Meets CLE req of Arts/Humanities;
Instructor: Norwood, James
Description: [INSTRUCTOR UPDATE OF 8/12/10: Although this class is full, I will be maintaining a waiting list and assigning a limited number of permission numbers. Please send me an e-mail, and I will contact you immediately about the status of the waiting list. Thanks! --James Norwood (norwood001@umn.edu)]
The enduring legacy of Ancient Greece and Rome in the Western tradition of art, literature, history, and ideas is the major focus of this course. We will trace such great stories as the Persian Wars, Periclean Athens, the development of the Roman Republic and Empire; great lives of individual Greeks and Romans; and artistic landmarks and ideas from antiquity. Readings will include selected works of Aeschylus, Sophocles, Euripides, Aristophanes, and Plato from Greece. From the period of Rome, we will study the works of Virgil, Ovid, Plutarch, and Marcus Aurelius. In examining art, literature, history, philosophy,
and cultural values, we will seek connections among the various disciplines. Throughout the course we will examine how the tradition of Western humanities has shaped institutions, social roles, and personal values we still possess today. Video and slide presentations will accompany many of the classes.

IMPORTANT NOTES: (1) Grading will be based primarily on scholarly expository writing with high standards; (2) Class attendance is required and will be a component of grading in this course. This is intended as a lively learning experience with the class comprised of a wide range of student disciplines and majors.

**Style:** 85% Lecture, 10% Film/Video, 5% Discussion.

**Grading:** 25% mid exam, 25% final exam, 25% reports/papers, 20% quizzes, 5% attendance. Attendance will be worth at least 5% (with strict penalty structure for missing classes and an incentive for attending all of the classes).

**Exam Format:** take-home essay with high standards for grading (eight criteria to be covered in class, all of which must be fulfilled for satisfactory grades)

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**HUM 1004 Humanities in the West IV**

*4 credit(s); Credit will not be granted if credit has been received for: HUM 3004; Meets CLE req of Arts/Humanities;*

**Instructor:** Norwood, James

**Description:** [INSTRUCTOR UPDATE OF 8/11/10: Although this class is full, I will be maintaining a waiting list and assigning a limited number of permission numbers. Please send me an e-mail, and I will contact you immediately about the status of the waiting list. Thanks! --James Norwood (norwo001@umn.edu)]

**ATTENTION!!! FANS OF DAN BROWN'S ANGELS & DEMONS!!!** This course will begin with the study of Dan Brown's popular novel Angels and Demons along with the artistic contributions of Bernini, the history of the papacy, and the artistic developments in the eternal city of Rome in the Baroque age. Next, we will explore the dazzling cultural achievements of the 17th and 18th centuries in the Western tradition of art, music, literature, history, science, and ideas spanning the epochs of the Baroque and Enlightenment. Readings will include selected works of Moliere, Descartes, Voltaire, Rousseau, Diderot, Beaumarchais, Sheridan, Goethe, and others. There will be special coverage of Daniel Defoe's novel Moll Flanders along with the study of the lives of great men and women of this period. Throughout the course we will explore how the tradition of Western humanities has shaped institutions, social roles, and personal values we still possess today. Slide and video presentations will accompany many of the classes. IMPORTANT NOTES: (1) Grading will be based primarily on scholarly expository writing with high standards; (2) Class attendance is required and will be a component of grading in this course. This is intended as a lively learning experience with the class comprised of a wide range of student disciplines and majors.

**Style:** 85% Lecture, 10% Film/Video, 5% Discussion.

**Grading:** 25% mid exam, 25% final exam, 25% reports/papers, 20% quizzes, 5% attendance. Attendance will be worth at least 5% (with strict penalty structure for missing classes and an incentive for attending all of the classes).

**Exam Format:** take-home essay with high standards for grading (eight criteria to be covered in class, all of which must be fulfilled for satisfactory grades)

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**HUM 1006 Humanities in the West VI**

*4 credit(s); Credit will not be granted if credit has been received for: HUM 3006; Meets CLE req of Arts/Humanities; meets CLE req of Global Perspectives;*

**Instructor:** Kliger, George

**Description:** This course will explore the interaction of rival ideologies, historical events, and forms of culture and society as well as critical responses to them, in Europe in the twentieth century. Topics explored will include Marxism, the Bolshevik revolution and its aftermath; Freud and psychoanalysis; alienation and absurdity; the rise of Fascism and the Holocaust; Existentialism; Jungian psychology; the influence of Oriental spiritual traditions on the West. Major works of the times in political theory, sociology, the novel, drama, poetry, philosophy, personal narrative, and visual art, including film, which have reflected and profoundly influenced thinking, feeling and action will be examined in some detail. Works by representative figures will include those of Lenin, Koestler, Freud, Eliot, Kafka, Levi, Picasso, Camus, Ionesco, Jung, Fellini, Watts. The course has no prerequisite and should be of value to all undergraduate students.

**Style:** 80% Lecture, 20% Discussion.

**Grading:** 50% mid exam, 50% final exam.

**Exam Format:** Take-home essays. Each exam is 50% of grade.

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**HUM 1431 Arts and Humanities**

*A-F only, 3 credit(s), max credits 6; prereq Repeated enrollment allowed only if topics are different Only Rochester-admitted students will be able to enroll in this course.; Meets CLE req of Other Humanities Core;*

**Instructor:** Bamford, Rebecca

**Description:** Student may contact the instructor or department for information.

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**HUM 1433 Literature in a Social and Historical Context: Literature in a Social and Historical Context**

*A-F only, 0 credit(s), max credits 6; prereq Repeated enrollment allowed only if topics are different Only Rochester-admitted students will be able to enroll in this course.; Meets CLE req of Other Humanities Core;*

**Instructor:** Nichols, Marcia Dawn

**Description:** Student may contact the instructor or department for information.

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**HUM 1905 Topics: Freshman Seminar**

*3 credit(s); prereq Fr;*

**Instructor:** Kliger, George

**Description:** This seminar will explore a variety of visions of an ideal society (utopia) and its opposite (anti-utopia) in the writings of philosophers, novelists, psychologists, and social and cultural critics through the ages, from Plato to Orwell, to an example of feminist theory. With regard to each vision, topics such as fundamental assumptions about human nature, ideals and values worthy of implementation and their compatibility, the nature of human institutions and their potentials for good and evil, will be examined. A central concern of the seminar will be to assess the degrees of actual or potential correspondence of these visions to the real world of individual and social existence.

**Style:** 90% Discussion, 10% Student Presentation.

**Grading:** 70% reports/papers, 15% in-class presentation, 15% class participation. 12 class meetings attendance required to pass course

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**HUM 3001 Humanities in the West I**

*4 credit(s); Credit will not be granted if credit has been received for: HUM 1001; Meets CLE req of Arts/Humanities;*

**Instructor:** Norwood, James

**Description:** [INSTRUCTOR UPDATE OF 8/2/10: Although this class is full, I will be maintaining a waiting list and assigning a limited number of permission numbers. Please send me an e-mail, and I will contact you immediately about the status of the waiting list. Thanks! --James Norwood (norwo001@umn.edu)]

**IMPORTANT NOTE:** This course requires a substantial independent research project for 3000-level credit. If you do not yet have junior/senior standing and have not had extensive experience in research and expository writing in the humanities, you should register for HUM 1001. The enduring legacy of Ancient Greece and Rome in the Western tradition of art, literature, history, and ideas is the major focus of this course. We will trace such great stories as the Persian Wars, Periclean Athens, the development of the Roman Republic and Empire; great lives of individual Greeks and Romans; and artistic landmarks and ideas from antiquity. Readings will include selected works of Aeschylus, Sophocles, Euripides,
Aristophanes, and Plato from Greece. From the period of Rome, we will study the works of Virgil, Ovid, Seneca, Plutarch, and Marcus Aurelius. In examining art, literature, history, philosophy, and cultural concerns, we will seek to comprehend the various disciplines. Throughout the course we will examine how the tradition of Western humanities has shaped institutions, social roles, and personal values we still possess today. Video and slide presentations will accompany many of the classes.

IMPORTANT NOTES: (1) Grading will be based primarily on scholarly expository writing with high standards; (2) Class attendance is required and will be a component of grading in this course. This is intended as a lively learning experience with the class comprised of a wide range of student disciplines and majors.

**Style:** 85% Lecture, 10% Film/Video, 5% Discussion.

**Grading:** 20% mid exam, 20% final exam, 20% reports/papers, 20% special projects, 15% quizzes, 5% attendance. Attendance will be worth at least 5% (with strict penalty structure for missing classes and an incentive for attending all of the classes);

**Exam Format:** take-home essay with high standards for grading (eight criteria to be covered in class, all of which must be fulfilled for satisfactory grades)

**HUM 3004 Humanities in the West IV**

4 credit(s); Credit will not be granted if credit has been received for: HUM 1004; Meets CLE req of Arts/Humanities;

**Instructor:** Norwood, James

**Description:** [INSTRUCTOR UPDATE OF 8/10/10: Although this class is full, I will be maintaining a waiting list and assigning a limited number of permission numbers. Please send me an e-mail, and I will contact you immediately about the status of the waiting list. Thanks! --James Norwood (norwo001@umn.edu)]

IMPORTANT NOTE: This course requires a substantial independent research project for 3000-level credit. If you do not yet have junior/senior standing and have not had extensive experience in research and expository writing in the humanities, you should register for Hum 1004. This course will begin with the study of Dan Brown's popular novel Angels and Demons along with the artistic contributions of Bernini, the history of the papacy, and the artistic developments in the eternal city of Rome in the Baroque age. Next, we will explore the dazzling cultural achievements of the 17th and 18th centuries in the Western tradition of art, music, literature, history, science, and ideas, and spanning the epochs of the Baroque and Enlightenment. Readings will include selected works of Moliere, Descartes, Voltaire, Rousseau, Diderot, Beaumarchais, Sheridan, Goethe, and others. There will be special coverage of Daniel Defoe's novel Moll Flanders along with the study of the lives of great men and women of this period. Throughout the course we will explore how the tradition of Western humanities has shaped institutions, social roles, and personal values we still possess today. Slide and video presentations will accompany many of the classes. IMPORTANT NOTES: (1) Grading will be based primarily on scholarly expository writing with high standards; (2) Class attendance is required and will be a component of grading in this course. This is intended as a lively learning experience with the class composed of a wide range of student disciplines and majors.

**Style:** 85% Lecture, 10% Film/Video, 5% Discussion.

**Grading:** 20% mid exam, 20% final exam, 20% reports/papers, 20% special projects, 15% quizzes, 5% attendance. Attendance will be worth at least 5% (with strict penalty structure for missing classes and an incentive for attending all of the classes);

**Exam Format:** take-home essay with high standards for grading (eight criteria to be covered in class, all of which must be fulfilled for satisfactory grades)

**HUM 3006 Humanities in the West VI**

4 credit(s); Credit will not be granted if credit has been received for: HUM 1006; Meets CLE req of Arts/Humanities; meets CLE req of Global Perspectives;

**Instructor:** Kliger, George

**Description:** This course will explore the interaction of rival ideologies, historical events, and forms of culture and society as well as critical responses to them, in Europe in the twentieth century. Topics explored will include Marxism, the Bolshevik revolution and its aftermath; Freud and psychoanalysis; alienation and absurdity; the rise of Fascism and the Holocaust; Existentialism; Jungian psychology; the influence of Oriental spiritual traditions on the West. Major works of the times in political theory, psychology, the novel, drama, poetry, philosophy, personal narrative, and visual art, including film, which have reflected and profoundly influenced thinking, feeling and action will be examined in some detail. Works by representative figures will include those of Lenin, Koestler, Freud, Eliot, Kafka, Levi, Picasso, Camus, Ionesco, Jung, Fellini, Watts. The course has no prerequisite and should be of value to all undergraduate students.

**Style:** 80% Lecture, 20% Discussion.

**Exam Format:** Take-home essays. Each exam is 16% of grade. Each paper is 18% of grade.

**HUM 3531 The Mysterious William Shakespeare: Authorship and World View**

A-F only, 4 credit(s); Meets CLE req of Literature;

**Instructor:** Norwood, James

**Description:** In the year 2000, Time magazine declared that William Shakespeare was the Person of the Millennium. But who was he? This course is intended as a lively learning experience focusing on the Shakespeare authorship controversy. Through the ages, the name of Shakespeare has been linked to an actor from the tiny community of Stratford-upon-Avon, and, despite minimal formal education, this burgher allegedly wrote the greatest literary works in the English language. Over the past two decades, there has been renewed scholarly interest in the authorship question with special attention given to the life of Edward de Vere, an aristocrat with the educational background similar to that of other Elizabethan poets. The two main topics for exploration in our course will be the authorship question from the perspectives of Shakespeare and de Vere. The course will address as well the world view of Elizabethan England, especially the ideas that helped shape the cultural brilliance of the court of Queen Elizabeth. The works to be studied include representative books by modern scholars, as well as selected plays and poems of Shakespeare. At the end of the course, you will take away an experience of the rich poetic drama in the Tudor age, the life and world of Queen Elizabeth, and the genius of Shakespeare, whoever the author may be.

**Style:** 80% Lecture, 10% Film/Video, 10% Discussion. video presentations

**Grading:** 20% mid exam, 20% final exam, 20% reports/papers, 10 quizes.

**Exam Format:** take-home essay

**HUM 3970 Directed Studies**

1-4 credit(s), max credits 4, 1 completion allowed; prereq instr consent;

**Instructor:** STAFF

**Description:** Student may contact instructor or department for information.

**HUM 4970 Directed Studies**

1-4 credit(s), max credits 4, 1 completion allowed; prereq Jr or sr or grad, instr consent;

**Instructor:** STAFF

**Description:** Student may contact instructor or department for information.

**Industrial Engineering**

**125 Mechanical Engineering**

**IE 4521 Statistics, Quality, and Reliability**

4 credit(s); prereq Upper div or grad student or CNR;

**Instructor:** Friedler, Corrine (Corrie)

**Description:** Student may contact the instructor or department for information.
IE 5111 Systems Engineering I
A-F only, 2 credit(s); prereq CSE upper div or grad student;
Instructor: Monson,Robert James
Description: 

IE 5112 Introduction to Operations Research
A-F only, 3 credit(s); prereq [Math 2243 or Math 2373 or equiv], [one semester of probability or statistics], [CSE upper div or grad student];
Instructor: England,Darin Allen
Description: 

IE 5441 Financial Decision Making
A-F only, 4 credit(s); prereq IT upper div or grad student
Instructor: STAFF
Description: To train students to become better problem solvers, appreciate the importance of cost and revenue estimates, and inputs. To actively seek opportunities to improve customer satisfaction and reduce costs. Subject matter: (1) Financial Accounting - Preparation of financial statements to generate information for users external to the organization according to the prescribed rules and conventions. Accounting for inventories; Plants, equipment depreciations, Accounts Receivables; liabilities, Stockholders' equity, cash flow statements, and analysis of financial statements. (2) Time Value of Money - Collapsing the time element in the cashflow of inputs and outputs for various alternatives: Elementary exposure how to handle risk, the material is not covered in the textbook. Supplementary reading material will be prescribed. (3) Managerial Accounting (Chapters 15-24) Accounting for management and control of manufacturing and service operations. Topics of job casting, process costing, activity based costing, activity based management, standard costing and variance accounts, responsibility accounting, transfer prices, performance evaluation, operational and capital budgeting. The focus is to improve problem solving and decision making capabilities to improve productivity, profitability for the firm and improve value to the customer through improving value chain integration reducing quality losses and through business process reengineering.
Style: 60% Lecture, 10% Discussion. problem solving
Grading: 40% mid exam, 60% final exam.
Exam Format: problems; The final exam will be comprehensive with an 80% weight to management accounting. Homework is assigned in the class.

IE 5511 Human Factors and Work Analysis
A-F only, 4 credit(s); prereq Upper div CSE or grad student
Credit will not be granted if credit has been received for:
HUMF 5211;
Instructor: Hayes,Caroline Clarke
Description: Student may contact the instructor or department for information.

IE 5541 Project Management
4 credit(s); prereq Upper div or grad student;
Instructor: Schaller,Robin E
Description: Student may contact the instructor or department for information.

IE 8532 Stochastic Processes and Queuing Systems
4 credit(s); prereq 4521 or equiv;
Instructor: Cooper,William L
Description: Student may contact the instructor or department for information.

IE 8773 Graduate Seminar
S-N only, 1 credit(s);
Instructor: Gupta,Diwakar
Description: Student may contact the instructor or department for information.

IE 8774 Graduate Seminar
S-N only, 1 credit(s); prereq 8773;
Instructor: Gupta,Diwakar
Description: Student may contact the instructor or department for information.

IE 8794 Industrial Engineering Research
1-6 credit(s), max credits 10, 10 completions allowed; prereq instr consent ;
Instructor: Benjaafar,Salif
Description: Student may contact the instructor or department for information.

IE 8951 Plan B Course
S-N only, 1 credit(s);
Instructor: Kortshagen,Uwe Richard
Description: Student may contact the instructor or department for information.

Information Networking
20 Classroom Office Building

INET 3065 Computer Security for the Non-IT Professional
3 credit(s); prereq Basic computer/internet navigation skills, laptop with minimum 2GB ram/DVD player/Windows XP;
Instructor: Estrem,LeAllan James
Description: Fundamental concepts of computer security without technical jargon. Real-world examples and issues. Practices for safe, secure and ethical computer use: virus, worms and malware detection and elimination; antivirus and firewall selection; secure Internet purchasing; using social networking sites; web page set-up.

INET 3101 C Programming for the Java Programmer
A-F only, 1 credit(s); prereq Programming experience or completed coursework in [Java or C+ or similar programming language];
Instructor: Langanki,Mark D
Description: The C programming language has a long history. C remains one of the most powerful languages available today and is at the foundation of many operating systems. This course covers past and present use of the C language, C syntax, libraries, memory management, File I/O (file and socket), modularity, ways other languages use C to interact with an operating system, debugging, and guidelines for how and where to use C instead of other languages. The course also provides an overall approach to software development that uses an adaptive model for well-designed and well-written code in any language-code that is elegant, powerful, and easy to understand. This model assists developers in logically breaking programs into "atomic" parts that can be built upon, modularized, and eventually easily tested when brought together in a program. The concept of "programming styles" will also be introduced, helping students decide which style will work best for them. Upon course completion, students will be able to - Code, compile and link C programs - Use and create C libraries - Debug C applications - Understand appropriate application of the C language. Group assignments will use real-world examples of appropriate use of C. Hands-on exercises will start with writing some simple UNIX/Linux shell commands in C, and then move into larger programs. Linux-based Ubuntu (http://www.ubuntu.com) or Knoppix (http://www.knoppix.org) are the free downloadable operating systems of choice for the class, and are bootable from CD/DVD.

INET 4011 Network Administration
A-F only, 4 credit(s); prereq CSci 4211 or instr consent ;
Instructor: Hilditch,Bruce R
Description: This course combines theory (lecture and expert guest speakers) and application (labs). Topics include network architecture, switching, routing, algorithms, protocols,
INET 4032 Storage Design and Administration  
A-F only, 2 credit(s);  
Instructor: Follstad, Carl  
Description: In today's "data explosion," managing data presents a challenge for organizations of all sizes. Basics of data management -- storage, protection and encryption -- as well as advanced topics of disaster recovery and business continuity are presented. Lectures will leverage case studies of local companies and how they are architecting their operations in unconventional ways to manage and protect terabytes of data. Students will learn how to apply storage industry best practices to solve everyday IT and business problems. Legal issues regarding data storage and retention, cutting-edge data storage products emerging into mainstream use, and "personal" data management and protection will also be discussed.

INET 4041 Emerging Network Technologies and Applications  
A-F only, 3 credit(s);  
Instructor: Dunn, Lawrence  

INET 4061 Introduction to Data Warehousing  
A-F only, 3 credit(s);  
Instructor: Spiehl, Katherine Anna  
Description: Design strategies for business analytics solutions: Business case studies, data mining and OLAP dimensional data models, warehouse architectures, ETL processes, physical design, and administration. Includes hands-on labs with SQL Server 2005.

INET 4153 Policy and Regulation: Effects on Global IT Infrastructure  
A-F only, 3 credit(s);  
Instructor: Hedblom, Milda Kusler  

INET 4193 Directed Study  
A-F only, 1-4 credit(s), max credits 12, 4 completions allowed;  
Instructor: STAFF  
Description: Independent project, topic arranged with and supervised by ITI faculty.

INET 4709 Database Administration  
A-F only, 2 credit(s);  
Instructor: Onkka, Daniel Charles  
Description: Basics of database administration. Planning, administration, backup and restore, security, monitoring, availability, replication, and scalability.

IDSC 3001 Information Systems for Business Processes and Management  
A-F only, 3 credit(s);  
Instructor: Olson, Timothy Harold  
Description: Student may contact the instructor or department for information.

IDSC 3001 Information Systems for Business Processes and Management  
A-F only, 3 credit(s);  
Instructor: Ren, Yuqing  
Description: Student may contact the instructor or department for information.

IDSC 3001H Honors: Information Systems for Business Processes and Management  
A-F only, 3 credit(s);  
Instructor: Ren, Yuqing  
Description: Student may contact the instructor or department for information.

IDSC 3101 Introduction to Programming  
A-F only, 2 credit(s);  
Instructor: Umyarov, Akhmed  
Description: Student may contact the instructor or department for information.

IDSC 3102 Intermediate Programming  
A-F only, 2 credit(s);  
Instructor: Reily, Ken  
Description: This course is designed for students who have taken IDSC 3201: Introduction to Programming or have equivalent programming experience and wish to supplement their basic programming knowledge. The course welcomes students from all majors who wish to learn basic computer programming. This is a required course for MIS majors. This course will supplement students' basic knowledge of programming concepts by introducing intermediate programming concepts that allow the student to transition from developing simple applications to developing larger and more full-featured applications. The course will cover topics such as object-oriented programming techniques, database applications, and modern web applications. In addition, the course will refine students' basic techniques by covering intermediate programming style, program performance, and basic user interface design principles. Students will learn these concepts through step-by-step tutorials, in-class demonstrations and exercises (the course is taught in an interactive classroom lab), and several take-home programming assignments. Student performance will be evaluated using a combination of objective quizzes and exams, completion of assigned exercises, and expert evaluation of the students' take-home programming assignments. This course uses the latest tools and techniques for building applications, and assumes that students have introductory programming knowledge from IDSC 3101 or equivalent experience.

Style: 20% Lecture, 10% Discussion, 50% Laboratory, 20% Demonstration.  
Grading: 20% mid exam, 30% final exam, 50% written homework. Written homework consists of take-home computer programming assignments.

Exam Format: Objective (multiple choice/true-false) and/or computer programming

IDSC 3103 Data Modeling and Databases  
This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
IDSC 3104 Information Technology Infrastructure
A-F only, 2 credit(s); prereq 3001 credit will not be granted if credit already received for: IDSc 4203;
Instructor: Naumann,J David
Description: Fundamental concepts of IT infrastructure and infrastructure planning and management. First 1/3 of the course covers telecommunications, an important part of IT infrastructure, focusing on LAN and Internet basics and protocols. IT infrastructure has gradually been recognized as not only critical for an organization’s operations but as an inhibitor or enabler of improvements. Organizations need to develop and manage IT infrastructure that can serve them well through business growth and change processes. Course topics include IT infrastructure planning and management, and IT infrastructure technologies, including networking and telecommunications, data storage, operating systems, and servers; the concepts of services, web-services and the principles of service-oriented architecture (SOA). Course Content 1. Components of IT Infrastructure a. Networking and Telecommunications b. Operating Systems c. Client-Server Architecture d. Data storage technologies e. Information security f. Computer operations 2. Planning and Managing IT Infrastructure g. Business value of IT infrastructure h. Infrastructure organization I. Services, and Service Oriented Architecture (SOA)
Style: 60% Lecture, 20% Discussion, 6% Field Trips, 14% Guest Speakers
Grading: 40% final exam, 15% reports/papers, 30% quizzes, 15% class participation.

IDSC 3202 Analysis and Modeling for Business Systems Development
A-F only, 4 credit(s); prereq 3001;
Instructor: Fiedler,Corrinne (Corrie)
Description: Improving business processes has become a key business strategy: always driving toward faster, cheaper, more reliable processes. A key role in these improvement efforts is that of the Business Analyst: the person who bridges the gap of understanding between the business needs and the technologists (designers and programmers) - - IDSC 3202 emphasizes the science and the art of converting ambiguous and contradictory business concepts into business process models. These models must, of course, be correct, but also precise enough to be implemented. - - Over the semester, we study critical business analyst skills: evaluating current processes, recommending strategic solutions, working with business stakeholders to clarify & document requirements, developing process and data models, and planning for the human side of change. - - The class covers critical skills for those with career goals in any process-oriented role in today’s enterprises, including business analyst, supply chain manager, operations manager, finance manager, MIS manager, project manager. - - The course includes hands-on experience with process modeling (Microsoft Visio), project management (Microsoft Project), and data base (Microsoft Access) tools.
Style: 45% Lecture, 30% Discussion, 15% Small Group Activities, 5% Student Presentation, 5% Guest Speakers. Class time set aside weekly for team project work.
Grading: 20% mid exam, 10% final exam, 25% special projects, 30% written homework, 15% class participation.

IDSC 4204W Managing Information Services
A-F only, 4 credit(s); prereq 3202; Meets CLE req of Writing Intensive;
Instructor: Olson, Timothy Harold
Description: Student may contact the instructor or department for information.

IDSC 4421 Financial Information Systems and Technologies
A-F only, 2 credit(s); prereq 3001;
Instructor: Velasco, Miguel
Description: Student may contact the instructor or department for information.

IDSC 4441 Electronic Commerce
A-F only, 2 credit(s); prereq 3001;
Instructor: Mitchell, Benjamin T
Description: Student may contact the instructor or department for information.

IDSC 6040 Information Technology Management
A-F only, 2 credit(s); prereq MBA core menu course;
Instructor: Subramani, Mani R
Description: Student may contact the instructor or department for information.

IDSC 6040 Information Technology Management
A-F only, 2 credit(s); prereq MBA core menu course;
Instructor: Nemani, Rao R
Description: Student may contact the instructor or department for information.

IDSC 6050 Information Technologies and Solutions
A-F only, 2 credit(s);
Instructor: Adomavicius, Gediminas
Description: Student may contact the instructor or department for information.

IDSC 6442 E-Sourcing and E-Auctions
A-F only, 2 credit(s); prereq MBA student;
Instructor: Gupta, Alok
Description: Why do we have a variety of different companies offering mechanisms to buy same goods (e.g., eBay Auctions as compared to Amazon's posted price mechanism)? The counterparts in Business-to-Business (B2B) arena are even more diverse and mind boggling. The answer lies in the power that digitization of business processes has provided by being able to recognize, manipulate and optimize on a complex set of information to enhance profits and reduce costs. Digitized processes allow the participants, in any exchange environment, to control, facilitate, derive, obfuscate and augment information necessary to make better decisions. In addition, innovative mechanism such as online variants of various auction mechanisms and other mercantile processes provide a myriad of options to manipulate and control participants' incentives. The characteristics of these mechanisms and information control strategies are critical aspects that should be considered in the design of any business process, especially ones enabling transactions. Yet, little is understood about the effect of design choices on bottom-line metrics such as costs and revenue. This course introduces students to the insights from practice as well as cutting edge research to enable students to make better managerial design choices, both for the form of electronic exchange itself and its underlying processes. The course will cover fundamentals of auction and exchange mechanisms and provide an immersion experience via two projects and classroom experiments designed to provide experiential learning using live-case based interactive simulations. The students will be exposed to competitive market dynamics from the perspective of: Exchange participants, Bidders, and Auctioneers, as the case may be. Design of the interactive exchange mechanisms requires understanding of incentives and facilitating these incentives via electronic mechanisms requires controlling information while optimizing bottom-line metrics. While the underlying theory of exchange mechanism comes from the theory of auctions and negotiations, we will also consider online environment, availability of tools for competitive intelligence, and application of exchange environments in B2B environments to include context information in the design of such mechanisms. The immersion experience will be supplemented with HBS cases and other managerially focused contemporary reading material for contextual understanding of the concepts discussed in the class. The in-class instructional approach is approximately divided into 40% lectures and 60% case discussions and in-class exercises. A sample course outline is included at the URL specified below.
Style: 30% Lecture, 40% Discussion, 10% Small Group
IDSC 6471 Knowledge Management  
A-F only, 2 credit(s); prereq MBA student;  
Instructor: Johnson, Paul E  
Description: Student may contact the instructor or department for information.

IDSC 6481 Managerial Decision Making  
A-F only, 2 credit(s); prereq MBA student;  
Instructor: Curley, Shawn P  
Description: This is not an IS course. The course is based on research in psychology and research in organizational theory to understand how decisions are made and when decisions fail. From this understanding, practical approaches and techniques for improving decision making are identified and, as appropriate, demonstrated. Although we use theory and achieve a working understanding of theory for our purposes, this is not a course in psychology or in organizational theory. It is a course in understanding the dynamics of decision making, towards the practical goal of improving decision making. Questions that frame the course include: - How are decisions made? What are the elements of a decision? Psychological and organizational theories form the bases of the frameworks employed. - How do decisions fail? What are some of the barriers to good decision making or characteristics of how we make decisions, that can lead us astray? - Based on the above, what techniques have or can be identified for improving decision making in our organizations? Developing and evaluating such techniques are the ultimate goals of the course.  
Style: 30% Lecture, 35% Discussion, 35% Small Group Activities.  
Grading: 90% reports/papers, 10% class participation.

IDSC 6490 Advanced Topics in MIS: Business of Blogs, Wikis & Online Social Networks  
A-F only, 2 credit(s), max credits 10, 5 completions allowed;  
prereq MBA student;  
Instructor: Ren, Yuqing  
Description: Social media technologies have profoundly changed how we live, work, and do business. In recent years, many companies have launched social media strategies to leverage these technologies to better connect with customers, suppliers, and employees. Despite thousands to millions of dollars invested, success is not guaranteed. Why? What are the implications for you and your company? What opportunities and challenges do businesses face in innovation, collaboration, brand management, community building? In this course, we work together to answer these questions through a combination of readings, class and online discussion, cases analyses, and hands-on project. You will learn the concepts and principles related to new business models supported by innovative use of social media technologies such as blogs, wikis, and online social networks. You will also gain hands on experience with popular social media applications and platforms.

IDSC 8511 Conceptual Topics and Research Methods in Information and Decision Sciences  
4 credit(s); prereq Business admin PhD student or instr consent;  
Instructor: Gupta, Alok  
Description: Student may contact the instructor or department for information.

IDSC 8711 Cognitive Science  
4 credit(s); prereq Business admin PhD student or instr consent;
**Innovation Studies**

**20 Classroom Office Building**

**IS 5001 Introduction to Innovation Studies**
- A-F only, 1-4 credit(s), max credits 4, 3 completions allowed; prereq dept consent
- Instructor: Tomskyv, John Peter

**Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Presents key Innovation Studies models and demonstrates how these models support individualized learning and leadership processes while being both broadly dynamic and collaborative. The models contribute to innovative self and team leadership strategies, define and apply just-in-time knowledge, and support lifelong self-improvement skills.

**Style:** 100% Web Based.

**Grading:** 40% reports/papers, 25% multiple choice and essay Exam Format: multiple choice and short essays

**IS 5002 Final Project for Innovation Studies**
- A-F only, 1-4 credit(s), max credits 4, 3 completions allowed; prereq Completion of IS requirements, dept consent
- Instructor: Harkins, Arthur M

**Description:** The Final Project must have an applied, field-based dimension, and may be undertaken in one of two ways: (1) as an internship in an organization such as a business, school, government agency, nonprofit or community group, or (2) as a hands-on study project that sheds light on a contemporary issue or problem. Section 001 is for initial preparation of the Final Project.

**IS 5100 Innovation Studies Seminar: Journalism, Citizens, and the Future of the News**
- A-F only, 2 credit(s), max credits 24, 24 completions allowed; prereq dept consent
- Instructor: Iggers, Jeremy Frankli

**Description:** Student may contact the instructor or department for information.

**IS 5100 Innovation Studies Seminar: Designing Professional Futures**
- A-F only, 3 credit(s), max credits 24, 24 completions allowed; prereq dept consent
- Instructor: Tomskyv, John Peter

**Description:**

**IS 5100 Innovation Studies Seminar: Chaos and Complexity**
- A-F only, 3 credit(s), max credits 24, 24 completions allowed; prereq dept consent
- Instructor: Shupe, David Arlin

**Description:** Student may contact the instructor or department for information.

**IS 5950 Special Topics: The Psychology of Sustainability**
- A-F only, 1 credit(s), max credits 12, 3 completions allowed; prereq dept consent
- Instructor: Manning, Christine

**Description:** Student may contact the instructor or department for information.

**IS 5950 Special Topics: Managing Change by Appreciative Inquiry**
- A-F only, 1 credit(s), max credits 12, 3 completions allowed; prereq dept consent
- Instructor: Schuelke, L David

**Description:** Student may contact the instructor or department for information.

**Insurance and Risk Management**

**3-122 Carlson School of Management**

**INS 4100 Corporate Risk Management**
- 2 credit(s); prereq credit will not be granted if credit received for: 5100
- Instructor: STAFF

**Description:** Corporate Risk Management is the process of assessing, controlling, financing and monitoring risks to increase value for all stakeholders. Business practices and theory are applied to treat human resource risks, financial risks, property, liability, and workers compensation risks, with risk control and risk financing tools, including insurance. Students learn to serve as consultants applying the risk management process to a live company. Practicing risk managers address the class and assist students in the consulting process.

**Style:** 70% Lecture, 15% Discussion, 15% Student Presentation.

**Grading:** 50% quizzes, 30% in-class presentation, 20% class participation. LMS/VISTA participation

**Exam Format:** multiple choice and essay

**INS 4101 Employee Benefits**
- 2 credit(s); prereq 4100 or 5100 or HRIR 3021 or instr consent credit will not be granted if credit received for: 5101
- Instructor: STAFF

**Description:** Design/administration of employee benefit plans as a component of total compensation: health insurance, disability plans, life insurance, salary reduction/deferred compensation programs/retirement plans--from social insurance to executive benefits. Alternative funding methods, including, self-insurance. Ethical issues, legal liability, compliance with regulations. Students learn to serve as consultants applying employee benefits to a live company. Practicing professionals and faculty address the class and assist students.

**Style:** 70% Lecture, 15% Discussion, 15% Student Presentation.

**Grading:** 15% reports/papers, 50% quizzes, 20% in-class presentation, 15% class participation.

**Exam Format:** multiple choice and essay

**INS 4201 Personal Financial Management**
- 2 credit(s); prereq credit will not be granted if credit received for: 5201
- Instructor: STAFF

**Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. This course is designed to introduce you to the nuts and bolts of job search strategies, including resume writing, interviewing, working, and the use of technology and the Internet

**Style:** 70% Lecture, 30% Discussion.

**Grading:** 60% reports/papers, 25% quizzes, 15% class participation.

**Exam Format:** multiple choice and essay

**Inter-College Program**

**20 Classroom Office Building**

**ICP 3000 Career Skills in the Professional Environment**
- 2 credit(s); prereq 60 cr
- Instructor: Bonderson, Lori

**Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policy, fee, and financial aid restrictions. This course is designed to introduce you to the nuts and bolts of job search strategies, including resume writing, interviewing, working, and the use of technology and the Internet

**Style:** 70% Lecture, 30% Discussion.

**Grading:** 60% reports/papers, 25% quizzes, 15% class participation.

**Exam Format:** multiple choice and essay
in job seeking.

**Style:** 100% Web Based.

**Grading:** 25% special projects. *Self-Introduction (12%) -Cover Letter (10%) -Resume (10%) -Networking Assignment (10%) -Career Center Visit (10%) -Course Project: Progress Report (3%) -Company Research (10%) -Interview Preparation (10%)

**ICP 3001W Introduction to Multidisciplinary Studies**

* A-F only, 3 credit(s); prereq Admitted to ICP Multidisciplinary Studies; Meets CLE req of Writing Intensive;

* Instructor: Redoutey, Karolyn M

* Description: This course is specifically designed for transfer or returning students who wish to complete a degree at the University of Minnesota after a two-year break in their education. The course will focus on the creation of a proposal of study which includes a statement of purpose, a reflective essay on education, and a rationale for courses chosen for the degree. Readings will examine purpose and transition in life which will may assist in writing the content of the proposal. We will also read from an anthology that encourages students to think about the five areas of study possible in the Multidisciplinary Studies degree.

**ICP 3001W Introduction to Multidisciplinary Studies**

* A-F only, 3 credit(s); prereq Admitted to ICP Multidisciplinary Studies; Meets CLE req of Writing Intensive;

* Instructor: Garrett, Lisa Ann

* Description: This is a fully online section offered through Online and Distance Learning (ODL). College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Designed for returning adult students admitted to the Inter-College Program? Multidisciplinary Studies degree. Students develop the skills for creating a proposal of study while cultivating an understanding of the fundamental aspects of a baccalaureate degree at the University of Minnesota. The role of an undergraduate degree in a lifetime of learning will be explored through critical reflection. Students will produce a MdS Proposal for Plan of Study and formulate a plan of courses and projects through which to complete a degree.

* Style: Online

* Grading: 14 online discussions (15%) -14 online reflective journal entries (29%) -Lifework activities (10%) -MdS Proposal for Plan of Study (41%) - Peer Reviews/Self-Evaluations (5%)

**ICP 3093 Directed Study**

* 1-15 credit(s), max credits 15, 1 completion allowed; prereq instr consent;

* Instructor: STAFF

* Description:

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**ID 1201 Major and Career Exploration**

* 2 credit(s); prereq Fr or soph;

* Instructor: Bolte, Mia M

* Description: Are you undecided about which major to choose? Or are you wondering what careers you can pursue with your major? In this class you'll learn about the foundations of career planning in relation to your interests. The course covers two main subjects: * Self-Assessment: Learn more about your skills, values, interests, and personality. * Exploring Options: Learn about majors available at the U, and how you can use your major to find a career you'll enjoy. We'll also introduce you to many of the resources available on campus, and help you explore the ways internships, community service, work experience, and travel can impact your future success. A $30 fee will be charged for career assessment inventories. Grading/Workload: Grades are determined based on student participation in class, 3-4 papers/projects, and other reaction papers as determined by the instructor. There are no exams in this course. An average of 25 pages of reading will be required each week.

**ID 1201 Major and Career Exploration**

* 2 credit(s); prereq Fr or soph;

* Instructor: Whitney, Angie Schmidt

* Description: Are you undecided about which major to choose? Or are you wondering what careers you can pursue with your major? In this class you'll learn about the foundations of career planning in relation to your interests. The course covers two main subjects: * Self-Assessment: Learn more about your skills, values, interests, and personality. * Exploring Options: Learn about majors available at the U, and how you can use your major to find a career you'll enjoy. We'll also introduce you to many of the resources available on campus, and help you explore the ways internships, community service, work experience, and travel can impact your future success. A $30 fee will be charged for career assessment inventories. Grading/Workload: Grades are determined based on student participation in class, 3-4 papers/projects, and other reaction papers as determined by the instructor. There are no exams in this course. An average of 25 pages of reading will be required each week.

**ID 1201 Major and Career Exploration**

* 2 credit(s); prereq Fr or soph;

* Instructor: Buckley, Christopher Gene

* Description: Are you undecided about which major to choose? Or are you wondering what careers you can pursue with your major? In this class you'll learn about the foundations of career planning in relation to your interests. The course covers two main subjects: * Self-Assessment: Learn more about your skills, values, interests, and personality. * Exploring Options: Learn about majors available at the U, and how you can use your major to find a career you'll enjoy. We'll also introduce you to many of the resources available on campus, and help you explore the ways internships, community service, work experience, and travel can impact your future success. A $30 fee will be charged for career assessment inventories. Grading/Workload: Grades are determined based on student participation in class, 3-4 papers/projects, and other reaction papers as determined by the instructor. There are no exams in this course. An average of 25 pages of reading will be required each week.

**ID 1201 Major and Career Exploration**

* 2 credit(s); prereq Fr or soph;

* Instructor: Halverson, Joyce A

* Description: Are you undecided about which major to choose? Or are you wondering what careers you can pursue with your major? In this class you'll learn about the foundations of career planning in relation to your interests. The course covers two main subjects: * Self-Assessment: Learn more about your skills, values, interests, and personality. * Exploring Options: Learn about majors available at the U, and how you can use your major to find a career you'll enjoy. We'll also introduce you to many of the resources available on campus, and help you explore the ways internships, community service, work experience, and travel can impact your future success. A $30 fee will be charged for career assessment inventories. Grading/Workload: Grades are determined based on student participation in class, 3-4 papers/projects, and other reaction papers as determined by the instructor. There are no exams in this course. An average of 25 pages of reading will be required each week.

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**Interdepartmental Study**

* 135 Johnston Hall

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for career assessment inventories. Grading/Workload: Grades are determined based on student participation in class, 3-4 papers/projects, and other reaction papers as determined by the instructor. There are no exams in this course. An average of 25 pages of reading will be required each week.

ID 1201 Major and Career Exploration
2 credit(s); prereq Fr or soph; Instructor: Sturm, Chelsie J
Description: Student may contact the instructor or department for information.

ID 3201 Career Planning
2 credit(s);
Instructor: Untiedt PhD, LP, Stephanie Ann
Description: Wondering what you'll do after graduation? This course provides a practical introduction to integrating career-search strategies with your talents, values, interests and experience. Emphasis is on understanding the marketplace, online research, strategic resume writing, networking, and interviewing. A $40 fee will be charged for career assessment inventories. Grading/Workload: Grades are determined based on student participation in class, 3-4 papers/projects, and other reaction papers as determined by the instructor. There are no exams in this course. An average of 25 pages of reading will be required each week.

ID 3201 Career Planning
2 credit(s);
Instructor: Holliday, David Wallace
Description: Wondering what you'll do after graduation? This course provides a practical introduction to integrating career-search strategies with your talents, values, interests and experience. Emphasis is on understanding the marketplace, online research, strategic resume writing, networking, and interviewing. A $40 fee will be charged for career assessment inventories. Grading/Workload: Grades are determined based on student participation in class, 3-4 papers/projects, and other reaction papers as determined by the instructor. There are no exams in this course. An average of 25 pages of reading will be required each week.

ID 3208 Internship Reflection: Making Meaning of Your Experience
1 credit(s); prereq dept consent;
Instructor: Stubblefield, Robin A
Description: Want to make the most of your internship experience? This class will allow you to examine, reflect on, and construct meaning from your internship experience. You will have opportunities to assess your personal and career needs and goals, learn about what it means to be a ?professional? and operate within professional environments, evaluate your performance and accomplishments as well as get feedback from others and develop a resume that helps to best articulate your knowledge and skills. Grading/Workload: Your performance will be evaluated from multiple perspectives including active and substantive participation in group/open discussions, satisfactory completion of all required assignments, the students' self evaluations, internship supervisor evaluations and instructor evaluations and the successful completion of the hours at their internship site. Assignments consist of reading, journal reflections & reactions. 3-4 papers/projects and other assignments as determined by the instructor. There are no exams in this course. **This is an online course.**

ID 3571 Metro Urban Studies Term: Contested Theories of Poverty, Inequality, and Social Change
4 credit(s); prereq Concurrent registration is required (or allowed) in 3572, 3573, dept consent;
Instructor: Holliday, David Wallace
Description: In the Metro Urban Studies Term students actively delve into major challenges of our time: poverty, inequality and social change. Connecting these issues is at the core of the program. Instead of just learning about these problems in the classroom, students actively explore solutions and become engaged in organization committed to social transformation. This program focuses on learning the basics of organizing in communities and workplaces, how to persuade others to become critically engaged, and how to be an effective advocate for issues and people. Concurrent enrollment in ID 3572 and ID 3573 is required. Contact the CCLC (612-626-2044) for more information.

ID 3572 Metro Urban Studies Term: Social Policy and Anti-Poverty Strategies in Theory and Practice
4 credit(s); prereq Concurrent registration is required (or allowed) in 3571, 3573, dept consent;
Instructor: Holliday, David Wallace
Description: In the Metro Urban Studies Term students actively delve into major challenges of our time: poverty, inequality and social change. Connecting these issues is at the core of the program. Instead of just learning about these problems in the classroom, students actively explore solutions and become engaged in organization committed to social transformation. This program focuses on learning the basics of organizing in communities and workplaces, how to persuade others to become critically engaged, and how to be an effective advocate for issues and people. Concurrent enrollment in ID 3571 and ID 3573 is required. Contact the CCLC (612-626-2044) for more information.

ID 3573 HECUA Off-Campus Study Program: Metro Urban Studies Term Internship Seminar
8 credit(s); prereq concurrent enrollment in 3571, 3572, dept consent;
contact CCLC, 345 Fraser H, 626-2044;
Instructor: Holliday, David Wallace
Description: In the Metro Urban Studies Term students actively delve into major challenges of our time: poverty, inequality and social change. Connecting these issues is at the core of the program. Instead of just learning about these problems in the classroom, students actively explore solutions and become engaged in organization committed to social transformation. This program focuses on learning the basics of organizing in communities and workplaces, how to persuade others to become critically engaged, and how to be an effective advocate for issues and people. This is an 8-credit internship in the Twin Cities. Concurrent enrollment in ID 3571 and ID 3573 is required. Contact the CCLC (612-626-2044) for more information.

ID 3591 HECUA Off-Campus Study Program: Environmental Sustainability: Adaptive Ecosystem Management
A-F only, 4 credit(s); prereq Concurrent registration is required (or allowed) in 3592, Concurrent registration is required (or allowed) in 3593, Concurrent registration is required (or allowed) in 3594, dept consent;
Instructor: Holliday, David Wallace
Description: Students will gain a practical understanding of the ecological and physical processes that underlie environmental degradation. This course includes both classroom and field work. All majors are welcome! Concurrent registration in ID 3592, 3593, & 3594 is required. Contact the CCLC (612-626-2044) for more information.

ID 3592 HECUA Off-Campus Study Program: Environmental Sustainability: Dimensions of Environmental Change
A-F only, 4 credit(s); prereq Concurrent registration is required (or allowed) in 3591, Concurrent registration is required (or allowed) in 3593, Concurrent registration is required (or allowed) in 3594, dept consent;
Instructor: Holliday, David Wallace
Description: All majors are welcome! Students explore how humans understand environmental sustainability, how current power dynamics and trends towards a global free market impact local efforts to promote sustainability, and how community and social movements are developing alternative visions of environmental sustainability. This course includes both classroom and field work. Concurrent registration in ID 3591, 3593, & 3594 is required. Contact the CCLC (612-626-2044) for more information.

ID 3593 HECUA Off-Campus Study Program in Sustainability: Field Methods Research and Investigation
This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
A-F only, 4 credit(s); prereq Concurrent registration is required (or allowed) in 3591, Concurrent registration is required (or allowed) in 3592, 3594, dept consent; Instructor: Holliday, David Wallace

Description: All majors are welcome! In this component of the program, students have an opportunity to work with scientists and community members to conduct publishable research. Concurrent registration in ID 3591, 3592, & 3594 is required. Contact the CCLG (612-626-2044) for more information.

ID 3594 HECUA Off-Campus Study Program: Environmental Sustainability, Internship
A-F only, 4 credit(s); prereq Concurrent registration is required (or allowed) in 3591, Concurrent registration is required (or allowed) in 3592, Concurrent registration is required (or allowed) in 3593, dept consent; Instructor: Holliday, David Wallace

Description: All majors are welcome! This 15-hour per week internship gives students an opportunity to interact and work with one of the most active networks of environmental organizations in the country. Concurrent registration in ID 3591, 3592, & 3593 is required. Contact the CCLG (612-626-2044) for more information.

ID 3901 Integrative Community Engagement Project Seminar
S-N only, 1 credit(s); prereq dept consent, Community Engagement Scholars coordinator approval; Instructor: Hirt, Laurel Elizabe

Description: Student may contact the instructor or department for information.

ID 3901 Integrative Community Engagement Project Seminar
S-N only, 1 credit(s); prereq dept consent, Community Engagement Scholars coordinator approval; Instructor: Dammer Hess, Laura Ann

Description: Student may contact the instructor or department for information.

ID 3993 Directed Study
1-4 credit(s), max credits 8, 8 completions allowed; prereq instr consent, dept consent, college consent; Instructor: Hirt, Laurel Elizabe

Description: Student may contact the instructor or department for information.

ID 3993 Directed Study
1-4 credit(s), max credits 8, 8 completions allowed; prereq instr consent, dept consent, college consent; Instructor: Timmins, Paul

Description: Student may contact the instructor or department for information.

Student may contact the instructor or department for information.

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**Instruction Design**

**240 McNeal Hall**

IDES 1601 Interior Design Studio I
A-F only, 4 credit(s); prereq Interior design pre-major credit will not be granted if credit already received for: DHA 1601; Instructor: STAFF

Description: Introduction to theories used to solve interior design problems related to human behavior. Course based upon the design process and communication skills required of the interior design profession.

Style: 5% Lecture, 10% Discussion. studio
Grading: 10% quizzes, 5% class participation, 85% other evaluation. studio projects
Exam Format: short answer/essay

IDES 2196 Work Experience in Interior Design
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent; Instructor: Hadjiyanni, Tasoulla

Description: Student may contact the instructor or department for information.

IDES 2196 Work Experience in Interior Design
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent; Instructor: Martin, Caren Samter

Description: Student may contact the instructor or department for information.

IDES 2196 Work Experience in Interior Design
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent; Instructor: Zollinger, Stephanie Watson

Description: Student may contact the instructor or department for information.

IDES 2603 Interior Design Studio III
A-F only, 4 credit(s); prereq [1602 or DHA 1602] with grade of at least C-, pass portfolio review, interior design major credit will not be granted if credit already received for: DHA 2603; Instructor: STAFF

Description: Focus of the course is on presentation skills design of interior environment as influenced by neighborhood, adjacent structures, regional context and diverse cultures.

Style: 5% Lecture, 10% Discussion. studio
Grading: 85% other evaluation. studio projects

IDES 2612 Interior Materials and Specifications
A-F only, 4 credit(s); prereq [Pass portfolio review, interior design major] or instr consent credit will not be granted if credit already received for: DHA 2612; Meets CLE req of Environment; Instructor: Schoessler Lynn, Rachelle M

Description: Student may contact the instructor or department for information.

IDES 2621 Computer Aided Design: Interior Design
A-F only, 4 credit(s); prereq [Interior design major, pass portfolio review] or instr consent credit will not be granted if credit already received for: DHA 2621; Instructor: STAFF

Description: Application of two- and three-dimensional computer drawing in design/visualization of interior space. AutoCAD software used on a window-based system.

Style: 70% Lecture, 20% Discussion. small groups
Grading: 40% final exam, 10% reports/papers, 10% special projects, 35% quizzes, 5% class participation.
Exam Format: multiple choice, essay

IDES 3605 Interior Design Studio V

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A-F only, 4 credit(s); prereq [[2402 or DHA 2402], [2604 or DHA 2604], 2613] with grade of at least C-. interior design major credit will not be granted if credit already received for: DHA 3605; 
Instructor: STAFF 
Description: Advanced interior design projects dealing with small to medium scale spaces. Emphasizes special-needs populations. 
Style: 5% Lecture, 10% Discussion. design problem solving. 
Grading: 5% in-class participation, 5% class participation, 90% other evaluation. studio projects 

IDES 3614 Interior Design Ethics and Professional Practice 
A-F only, 4 credit(s); prereq 2604 or DHA 2604 credit will not be granted if credit already received for: DHA 3614; Meets CLE req of Civic Life and Ethics; 
Instructor: STAFF 
Description: The business of interior design, professional ethics and responsible design are emphasized. Students investigate their responsibility to their business clients, colleagues and the community at large. Professional portfolios and credentials will be discussed. This course will be web enhanced. 
Style: 35% Lecture, 30% Discussion. portions of the course on the web 
Grading: 20% special projects, 30% quizzes, 10% class participation, 40% problem solving. 
Exam Format: multiple choice, essay 

IDES 4160H Honors Capstone Project 
A-F only, 2 credit(s), max credits 4; prereq Interior design honors; 
Instructor: Hadjyanni,Tasoulla 
Description: Student may contact the instructor or department for information. 

IDES 4160H Honors Capstone Project 
A-F only, 2 credit(s), max credits 4; prereq Interior design honors; 
Instructor: Martin,Caren Samter 
Description: Student may contact the instructor or department for information. 

IDES 4160H Honors Capstone Project 
A-F only, 2 credit(s), max credits 4; prereq Interior design honors; 
Instructor: Guerin,Denise A 
Description: Student may contact the instructor or department for information. 

IDES 4160H Honors Capstone Project 
A-F only, 2 credit(s), max credits 4; prereq Interior design honors; 
Instructor: Zollinger,Stephanie Watson 
Description: Student may contact the instructor or department for information. 

IDES 4193 Directed Study in Interior Design 
A-F only, 1-4 credit(s), max credits 8; prereq Undergrad, instr consent; 
Instructor: Hadjyanni,Tasoulla 
Description: Student may contact the instructor or department for information. 

IDES 4196 Internship in Interior Design 
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; 
prereq Completion of at least on-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent; Credit will not be granted if credit has been received for: ADES 4196; 
Instructor: Martin,Caren Samter 
Description: Student may contact the instructor or department for information. 

IDES 4196 Internship in Interior Design 
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; 
prereq Completion of at least on-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent; Credit will not be granted if credit has been received for: ADES 4196; 
Instructor: Zollinger,Stephanie Watson 
Description: Student may contact the instructor or department for information. 

IDES 4196 Internship in Interior Design 
S-N only, 1-4 credit(s), max credits 4, 1 completion allowed; 
prereq Completion of at least on-half of professional sequence, plan submitted/approved in advance by [adviser, internship supervisor], written consent of faculty supervisor, instr consent; Credit will not be granted if credit has been received for: ADES 4196; 
Instructor: Martin,Caren Samter 
Description: Student may contact the instructor or department for information. 

IDES 4607 Interior Design Studio VII 
A-F only, 4 credit(s); prereq [3606 or DHA 3606] with grade of at least C-. 3614 credit will not be granted if credit already received for: DHA 4607; 
Instructor: STAFF 
Description: Interior Design Studio for majors. The course addresses sense of place and the contribution of artifacts to interior environments. The projects include using historic precedent for adaptive use or renovation of spaces. Life safety issues and universal design are part of the design parameters. 
Style: 5% Lecture, 10% Discussion. design studio, critique and the design process 
Grading: 15% in-class presentation, 5% class participation, 80% other evaluation. design projects 

IDES 4615W Interior Design Research 
A-F only, 2 credit(s); prereq 3606 or DHA 3606 credit will not be granted if credit already received for: DHA 4615W; Meets CLE req of Writing Intensive; 
Instructor: Guerin,Denise A 
Description: Student may contact the instructor or department for information. 

IDES 5193 Directed Study in Interior Design 
A-F only, 1-4 credit(s), max credits 8; prereq Jr or sr or grad
IDES 5193 Directed Study in Interior Design
A-F only, 1-4 credit(s), max credits 8; prereq Jr or sr or grad student;
Instructor: Martin,Caren Samter
Description: Student may contact the instructor or department for information.

IDES 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed; prereq instr consent;
Instructor: Zollinger,Stephanie Watson
Description: Student may contact the instructor or department for information.

IDES 8222 Plan B Master's Project
S-N only, 3 credit(s); prereq [DHA or design] master’s student, instr consent ;
Instructor: Hadjiyanni,Tasoulla
Description: Student may contact the instructor or department for information.
ITAL 1001 Beginning Italian
5 credit(s); Credit will not be granted if credit has been received for: ITAL 4001;
Instructor: STAFF
Description: Italian 1001 introduces students to the language and culture of Italy. Class time is spent on presentations of new concepts and on continual use of material already taught. Students work individually, in pairs and in groups. They learn to read, write, speak and understand Italian. They view Italian films. Integral parts of this course will be the online assignments (Quia workbook and laboratory manuals) that students are required to do at home and the cultural reading text Stelle, perle e mistero. By the end of the first semester, students can communicate in a number of real life situations and are becoming comfortable with the present and the past tenses. The grade is based on daily participation and homework performance, frequent quizzes, oral exams, compositions, and the final exam. Students who pass 1001 with a grade of +C-"or higher can then move on to Italian 1002.
Grading: 15% final exam, 65% quizzes, 5% class participation, 15% other evaluation. oral presentations
Exam Format: Fill in the blank; true/false; essay; short answer

ITAL 1002 Beginning Italian
5 credit(s); prereq 1001 or instr consent ; Credit will not be granted if credit has been received for: ITAL 4002;
Instructor: STAFF
Description: Italian 1002 is the second semester of beginning Italian: students must have completed Italian 1001 with a grade of "C-" or better in order to take Italian 1002. Italian 1002 introduces students to the language and culture of Italy. Class time is spent on presentations of new concepts and on continual use of material already taught. Students work individually, in pairs and in groups. They learn to read, write, speak and understand Italian. They view Italian films. Integral parts of this course will be the online assignments (Quia workbook and laboratory manuals) that students are required to do at home and the cultural reading text Stelle, perle e mistero. By the end of the second semester, students can communicate in a number of real life situations and are becoming comfortable with the present and the past tenses. Students who pass 1002 with a grade of "C-" or higher can then move on to Italian 1003.
Grading: 15% final exam, 65% quizzes, 5% class participation, 15% other evaluation. oral presentations
Exam Format: Short answer; fill in the blank, true/false

ITAL 1003 Intermediate Italian
5 credit(s); prereq 1001-1002; Credit will not be granted if credit has been received for: ITAL 4003;
Instructor: STAFF
Description: Italian 1003 is the third semester course of Italian language and culture. (Students must have completed the equivalent of a year of university level Italian instruction before taking this course.) Students concentrate on mastering elements of grammar and on increasing their active vocabularies. They continue to read, write, speak and listen to current Italian. Each student chooses a topic for a cultural presentation, which is both written and spoken. Italian films are integrated into the program. An integral part of this course is reading the text, Pinocchio. The grade is based on daily participation and homework performance, frequent quizzes, oral exams, compositions, cultural presentation and the final exam. At the end of the third semester, students who pass with a grade of "C-" or higher are ready to move on to Italian 1004 or to study in Italy.
Grading: 10% final exam, 70% quizzes, 5% class participation, 15% other evaluation. oral exam
Exam Format: essay, short answer, fill-in blank, true/false

ITAL 1004 Intermediate Italian
5 credit(s); prereq 1001, 1002, 1003; Credit will not be granted if credit has been received for: ITAL 4004;
Instructor: STAFF
Description: Italian 1004 is the fourth semester course of Italian language and culture. (Students must have completed the
ITAL 3015 Reading, Conversation, and Composition
4 credit(s); prereq 1004;
Instructor: Rider, Kathleen Marie
Description: Student may contact the instructor or department for information.

ITAL 3015 Reading, Conversation, and Composition
4 credit(s); prereq 1004;
Instructor: Olivero-Agney, Anna B
Description: Student may contact the instructor or department for information.

ITAL 3209 Literature of Medieval City-States
4 credit(s), max credits 16, 4 completions allowed; prereq 3015;
Instructor: Noakes, Susan J
Description: Study, in Italian, of the most influential work of prose produced in medieval Italy, Boccaccio's DECAMERON. This classic work provides a rich depiction of and commentary upon life in the city-states, from the viewpoint of Florence, in many ways the most successful—and most flawed—among them. Though Boccaccio's collection of 100 carefully written short stories was long banned by the church (and by many American libraries!), it has been described by such authorities as Wayne Booth (in THE RHETORIC OF FICTION) as marking the starting point of European fiction, pointing the way toward the invention of the novel. The class will devote the semester to studying in detail Boccaccio's stories, some bawdy, some comical, some tragic. Students will learn about the kinds of earlier material, in Latin, French, and perhaps Spanish, which Boccaccio drew upon and thus appreciate how he brought the genre of the tale to its highest point. Requires a strong knowledge of Italian. This is a four-credit course because students must be committed to considerable work. In Boccaccio's language, the basis of literary Italian prose to this day. Class discussion (in Italian), examinations, short paper, class presentations.

ITAL 3459W Senior Project
1 credit(s); Meets CLE req of Writing Intensive;
Instructor: Ferlito, Susanna Florencio
Description: Student may contact the instructor or department for information.

ITAL 3640 Topics in Italian Studies
3 credit(s), max credits 12, 4 completions allowed;
Instructor: STAFF
Description: Italian Renaissance Court Cultures: Politics, History, Culture and Performance. This course provides an introduction to Italian Renaissance court culture and in particular the court cultures of Rome, Florence, Milan, Ferrara and Venice. Our approach will be interdisciplinary and comparative as we examine the political and social dimension of Courts as well as the literature, the visual arts, the theatrical and musical performances which emerge and flourish around court culture during the Renaissance in Italy. Our comparative work will entail not only examining different political cultures within Italy but also keeping in mind different European court cultures. In this course, we will explore questions of patronage, different political systems, civil and religious rituals, public life vs private spheres, and codes of behaviour. We will pay special attention to the relationship between texts and performances. Among the authors read: Machiavelli, Castiglione, Poliziano, Michelangelo, Leonardo, Niccolo da Correggio. Taught in Italian. Midterm/final.

ITAL 4001 Beginning Italian
2 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: ITAL 1001;
Instructor: Lavecchia, Ornella
Description: Student may contact the instructor or department for information.

ITAL 4002 Beginning Italian
2 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: ITAL 1002;
Instructor: Berge, Nels A
Description: Student may contact the instructor or department for information.

ITAL 4004 Intermediate Italian
2 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: ITAL 1004;
Instructor: Rider, Kathleen Marie
Description: Student may contact the instructor or department for information.

ITAL 4970 Directed Readings
1-4 credit(s), max credits 16, 4 completions allowed; prereq instr consent;
Instructor: STAFF
Description: Meets unique requirements decided on by faculty member and student. Individual contracts are drawn up listing contact hours, number of credits, written and other work required.

ITAL 5640 Topics in Italian Studies
3 credit(s), max credits 12, 4 completions allowed; prereq Ital 3015;
Instructor: Noakes, Susan J
Description: Student may contact the instructor or department for information.

ITAL 5640 Topics in Italian Studies: Renaissance Court Cultures
3 credit(s), max credits 12, 4 completions allowed; prereq Ital 3015;
Instructor: Bortoletti, Francesca
Description: Student may contact the instructor or department for information.

ITAL 5970 Directed Readings
1-4 credit(s), max credits 16, 4 completions allowed; prereq instr consent;
Instructor: STAFF
Description: Meets unique requirements decided on by faculty member and student. Individual contracts are drawn up listing contact hours, number of credits, written and other work required.

Japanese
136 Klaeber Court

JPN 1011 Beginning Japanese
6 credit(s); Credit will not be granted if credit has been received for: JPN 4001;
Instructor: Tazawa, Kenichi
Description: This course is the first of a two-semester sequence of Beginning Japanese; it is for students who have no previous knowledge of Japanese. It aims to begin development of communication skills in Japanese. Therefore, we will work on the four basic skills of language (speaking, listening, reading, and writing) as well as culture-specific skills (do’s and don’ts). The following topics are covered in this semester: 1. Meeting people for the first time 2. Shopping and eating out 3. Describing

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activities and extending/declining invitations 4. Describing locations and things in the past 5. Making offers and talking about travel 6. Making a request, asking for/giving permission, and talking about rules The course will cover lessons 1 through 6 of Genki including both dialogue/grammar and reading/writing. It is expected that, by the end of this semester, students will have basic conversation skills in situations like those noted above, as well as rudimentary literacy in Japanese. Two types of Japanese characters (hiragana and katakana), as well as 58 Chinese characters (kana) will be learned.

Style: 29% Lecture, 71% Discussion.
Grading: 15% quizzes, 20% written homework, 10% attendance. Lesson Tests 35% (5 times) Oral Interviews 10% (2 times) Dialogue Checks 10% (Each Lesson)

JPN 3021 Intermediate Japanese
5 credit(s); prereq 1012 or inst consent; Credit will not be granted if credit has been received for: JPN 4003;
Instructor: Emmett, Keiko
Description: This course is the first of a two-semester sequence of Intermediate Japanese. The course will cover Lessons 13 through 17 of Genki (Refer to COURSE MATERIALS below), both sections of dialogue/grammar and of reading/writing. The course aims to develop the four communication skills (i.e., speaking, listening, reading, and writing) at an intermediate level as well as culture-specific skills (do's and don'ts). The items that will be covered in this semester include but are not limited to: 1. Telling what you can or cannot do, 2. Consulting, 3. Explaining things in detail, and 4. Making a request in a polite manner. It is expected that, by the end of this semester, students will be able to use the above functions for a job-interview, a request for the extension of a deadline, and so on. Students also will also be able to read and write an expository essay. Seventy-nine kana characters will be introduced, in addition to 145 characters learned in the previous lessons. PREREQUISITE: JPN1012/4002 You are required to take a placement test if: (1) your grade for JPN1012/4002 at the University of Minnesota was neither a C- or better, nor an S, or (2) you completed JPN1012/4002 at the University of Minnesota before Fall 2009. The placement test will be given on Sept. 3 (Fri), 2010 for the 2010 fall enrollment. Please go to the "Placement Test Info" on the Japanese Language Home Page and register for the test.
http://www.all.umn.edu/japanese_language/placement_test_info.html
Style: 40% Lecture, 60% Discussion.
Grading: 6% special projects, 18% quizzes, 27% written homework, 40% additional semester exams, 1% in-class presentation, 8% other evaluation.

JPN 3031 Third-Year Japanese
4 credit(s); prereq 3022 or inst consent;
Instructor: Buchanan, Michiko Todokoro
Description: Student may contact the instructor or department for information.

JPN 3290 Japanese Language Teaching Tutorial
S-N only, 1 credit(s), max credits 2; prereq Grade of A in 4042;
Instructor: Buchanan, Michiko Todokoro
Description: Student may contact the instructor or department for information.

JPN 4001 Beginning Japanese
3 credit(s); prereq Grad student; Credit will not be granted if credit has been received for: JPN 1011;
Instructor: Tazawa, Kenichi
Description: This course is the first of a two-semester sequence of Beginning Japanese; it is for students who have no previous knowledge of Japanese. It aims to begin development of communication skills in Japanese. Therefore, we will work on the four basic skills of language (speaking, listening, reading, and writing) as well as culture-specific skills (do's and don'ts). The following topics are covered in this semester: 1. Meeting people for the first time 2. Shopping and eating out 3. Describing activities and extending/declining invitations 4. Describing locations and things in the past 5. Making offers and talking about travel 6. Making a request, asking for/giving permission, and talking about rules The course will cover lessons 1 through 6 of Genki including both dialogue/grammar and reading/writing. It is expected that, by the end of this semester, students will have basic conversation skills in situations like those noted above, as well as rudimentary literacy in Japanese. Two types of Japanese characters (hiragana and katakana), as well as 58 Chinese characters (kana) will be learned.

Style: 29% Lecture, 71% Discussion.
Grading: 15% quizzes, 20% written homework, 10% attendance. Lesson Tests 35% (5 times) Oral Interviews 10% (2 times) Dialogue Checks 10% (Each Lesson)

JPN 4003 Intermediate Japanese
3 credit(s); prereq 4002, grad student; Credit will not be granted if credit has been received for: JPN 3021;
Instructor: Emmett, Keiko
Description: This course is the first of a two-semester sequence of Intermediate Japanese. The course will cover Lessons 13 through 17 of Genki (Refer to COURSE MATERIALS below), both sections of dialogue/grammar and of reading/writing. The course aims to develop the four communication skills (i.e., speaking, listening, reading, and writing) at an intermediate level as well as culture-specific skills (do's and don'ts). The items that will be covered in this semester include but are not limited to: 1. Telling what you can or cannot do, 2. Consulting, 3. Explaining things in detail, and 4. Making a request in a polite manner. It is expected that, by the end of this semester, students will be able to use the above functions for a job-interview, a request for the extension of a deadline, and so on. Students also will also be able to read and write an expository essay. Seventy-nine kana characters will be introduced, in addition to 145 characters learned in the previous lessons. PREREQUISITE: JPN1012/4002 You are required to take a placement test if: (1) your grade for JPN1012/4002 at the University of Minnesota was neither a C- or better, nor an S, or (2) you completed JPN1012/4002 at the University of Minnesota before Fall 2009. The placement test will be given on Sept. 3 (Fri), 2010 for the 2010 fall enrollment. Please go to the "Placement Test Info" on the Japanese Language Home Page and register for the test.
http://www.all.umn.edu/japanese_language/placement_test_info.html
Style: 40% Lecture, 60% Discussion.
Grading: 6% special projects, 18% quizzes, 27% written homework, 40% additional semester exams, 1% in-class presentation, 8% other evaluation.

JPN 4005 Third Year Japanese
3 credit(s); prereq 4004, grad student; Credit will not be granted if credit has been received for: JPN 4006;
Instructor: Buchanan, Michiko Todokoro
Description: Student may contact the instructor or department for information.

JPN 4041 Advanced Japanese Conversation and Composition
4 credit(s); prereq 3032 or inst consent;
Instructor: Matsumoto, Fumiko
Description: Student may contact the instructor or department for information.

JPN 5993 Directed Studies in Japanese
1-15 credit(s), max credits 15, 1 completion allowed; prereq inst consent, dept consent, college consent;
Instructor: Isaka, Maki
Description: Student may contact the instructor or department for information.

JPN 5993 Directed Studies in Japanese
1-15 credit(s), max credits 15, 1 completion allowed; prereq inst consent, dept consent, college consent;
Instructor: Marran, Christine L
Description: Student may contact the instructor or department for information.

Jewish Studies

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JWST 1034 Introduction to Jewish History and Civilization
3 credit(s); prerequisite credit will not be granted if credit already received for: JWST 1034/3034; Meets CLE req of Historical Perspectives;
Instructor: Jassen, Alex P
Description: The course provides a general introduction to Judaism in its many ancient and modern expressions. Students are introduced both to the historical narrative of the Jewish people and the beliefs and practices of the Jewish religion. We begin our story of Jewish history by examining the emergence of Judaism from the world of the Hebrew Bible (Old Testament) and ancient Israel and its continued development under the empires of Persia, Greece, and Rome. We then explore encounters between Judaism, Christianity, and Islam in the medieval world. We then turn to the impact of modernity and the Enlightenment on Judaism and the dramatic transformations that have shaped Judaism in the modern period. Across this broad historical landscape, we explore the diverse beliefs and practices of Judaism. We address the questions of ‘what do Jews believe?? and ‘what do Jews do?? through close analysis of different forms of Judaism across time and space. We seek to address the issue of what unites these diverse forms of Judaism and marks them all as Jewish. We also attempt to understand the social, literary, historical, and cultural influences that have helped shape the varieties of Jewish traditions and the influence of Judaism on other religions and cultures. The central ideas and motifs of Judaism to be addressed include: the Bible in Judaism, rabbinic literature, theology, Jewish mysticism (Kabbalah) and philosophy, Jewish law, Jewish nationalism, anti-Semitism, messianism, Jewish culture and identity, the synagogue, ritual and worship, life cycle, festivals and calendar. Students engage with the central questions of Jewish history through reading a wide selection of primary texts in translation, multimedia, classroom discussion, and critical writing assignments. There are no prerequisites for this course. It is intended to provide students with a general introduction to Judaism and stimulate interest in exploring further aspects of Jewish history and civilization and Religious Studies. Full Syllabus at: https://sites.google.com/a/umn.edu/jassen/my-courses/introduction-to-jewish-history-and-civilization
Style: 60% Lecture, 30% Discussion, 10% Small Group Activities.
Grading: 25% mid exam, 25% final exam, 40% reports/papers, 10% class participation.

JWST 1201 The Bible: Context and Interpretation
3 credit(s); Credit will not be granted if credit has been received for: RELS 3201; Meets CLE req of Literature;
Instructor: STAFF
Description: Where did the Hebrew Bible (‘Old Testament’) come from? In what way do the worldviews and traditions expressed by its ancient authors compare with those of the superpowers of their day, including the Canaanites (from Ugarit), the Hittites, the Egyptians, and the Mesopotamians? How did the text of the Hebrew Bible come to represent a millennium of beliefs, desires, and customs from ancient Israel and Judah, many of which still reverberate in our society today? Integrating a cross-disciplinary spectrum of religion, history, and literature, students in this class will read, analyze, and interpret Hebrew Bible texts in English, using methods employed by biblical scholars. This class fulfills the Liberal Education Requirement of Literature because in it students read the Hebrew Bible as ancient literature, asking questions about language and meaning, literary effects, and the Hebrew Bible’s social and historical contexts. Since we will engage in securing study only, analytically examining all relevant religious texts and traditions, students are required to have an open mind and willingness to read and discuss the Bible in a new way.

JWST 3034 Introduction to Jewish History and Civilization
3 credit(s); prerequisite credit will not be granted if credit already received for: JWST 1034/3034; Meets CLE req of Historical Perspectives;
Instructor: Jassen, Alex P
Description: The course provides a general introduction to Judaism in its many ancient and modern expressions. Students are introduced both to the historical narrative of the Jewish people and the beliefs and practices of the Jewish religion. We begin our story of Jewish history by examining the emergence of Judaism from the world of the Hebrew Bible (Old Testament) and ancient Israel and its continued development under the empires of Persia, Greece, and Rome. We then explore encounters between Judaism, Christianity, and Islam in the medieval world. We then turn to the impact of modernity and the Enlightenment on Judaism and the dramatic transformations that have shaped Judaism in the modern period. Across this broad historical landscape, we explore the diverse beliefs and practices of Judaism. We address the questions of ‘what do Jews believe?? and ‘what do Jews do?? through close analysis of different forms of Judaism across time and space. We seek to address the issue of what unites these diverse forms of Judaism and marks them all as Jewish. We also attempt to understand the social, literary, historical, and cultural influences that have helped shape the varieties of Jewish traditions and the influence of Judaism on other religions and cultures. The central ideas and motifs of Judaism to be addressed include: the Bible in Judaism, rabbinic literature, theology, Jewish mysticism (Kabbalah) and philosophy, Jewish law, Jewish nationalism, anti-Semitism, messianism, Jewish culture and identity, the synagogue, ritual and worship, life cycle, festivals and calendar. Students engage with the central questions of Jewish history through reading a wide selection of primary texts in translation, multimedia, classroom discussion, and critical writing assignments. There are no prerequisites for this course. It is intended to provide students with a general introduction to Judaism and stimulate interest in exploring further aspects of Jewish history and civilization and Religious Studies. Full Syllabus at: https://sites.google.com/a/umn.edu/jassen/my-courses/introduction-to-jewish-history-and-civilization
Style: 60% Lecture, 30% Discussion, 10% Small Group Activities.
Grading: 25% mid exam, 25% final exam, 40% reports/papers, 10% class participation.

JWST 1111 Too Jewish? The Complex Construction of the Jewish American Psyche in Literature, Art, and Film
A-F only, 3 credit(s);
Instructor: Katz, Judith
Description: What does it mean that the character of Jewish heroine Anne Frank was played by a gentle actress in the film version of her diary? That Jewish immigrant Irving Berlin wrote the American classic, White Christmas? How did it happen that Jewish songwriters Carole King, Neil Sedaka and Denise Rich have created, over generations, music made popular by African American performers? What did the celebrity of notables such as Leonard Bernstein, Norman Mailer, Albert Einstein, and Helena Rubenstein mean for Jews in post World War II America? Who knew that Mattel’s Barbie doll was invented by a Jewish woman? And what about Herschel Krustofsky, AKA The Simpsons? Krusty the Clown? Using essays, novels, short stories, and film this class will address these and many other questions about the image and location of Jews in American literature, film, and the arts, both center stage and behind the scenes.
Style: 30% Lecture, 20% Film/Video, 30% Discussion, 10% Student Presentation, 10% Guest Speakers.
Grading: 50% reports/papers, 10% attendance, 10% in-class presentation, 30% class participation.

JWST 3201 The Bible: Context and Interpretation
3 credit(s); Credit will not be granted if credit has been received for: RELS 3201; Meets CLE req of Literature;
Instructor: STAFF
Description: Where did the Hebrew Bible (‘Old Testament’) come from? In what way do the worldviews and traditions expressed by its ancient authors compare with those of the superpowers of their day, including the Canaanites (from Ugarit), the Hittites, the Egyptians, and the Mesopotamians? How did the text of the Hebrew Bible come to represent a millennium of beliefs, desires, and customs from ancient Israel and Judah, many of which still reverberate in our society today? Integrating a cross-disciplinary spectrum of religion, history, and literature, students in this class will read, analyze, and interpret Hebrew Bible texts in English, using methods employed by biblical scholars. This class fulfills the Liberal Education Requirement of Literature because in it students read the Hebrew Bible as ancient literature, asking questions about language and meaning, literary effects, and the Hebrew Bible’s social and historical contexts. Since we will engage in securing study only, analytically examining all relevant religious texts and traditions, students are required to have an open mind and willingness to read and discuss the Bible in a new way.

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superpowers of their day, including the Canaanites (from Ugurit), the Hittites, the Egyptians, and the Mesopotamians? How did the text of the Hebrew Bible come to represent a millennium of beliefs, desires, and customs from ancient Israel and Judah, many of which still reverberate in our society today? Integrating a cross-disciplinary spectrum of religion, history, and literature, students in this class will read, analyze, and interpret Hebrew Bible texts in English, using methods employed by biblical scholars. This class fulfills the Liberal Education Requirement of Literature because in it students read the Hebrew Bible as ancient literature, asking questions about language and meaning, literary effects, and the Hebrew Bible’s social and historical contexts. Since we will engage in secular study only, analytically examining all relevant religious texts and traditions, students are required to have an open mind and willingness to read and discuss the Bible in a new way.

**JWST 3520 History of the Holocaust**
3 credit(s); Credit will not be granted if credit has been received for: RELS 3521W; Instructor: Konecny, Matthew James
Description: Student may contact the instructor or department for information.

**JWST 3631 Jewish Writers and Rebels in German, Austrian, and American Culture**
3 credit(s); Credit will not be granted if credit has been received for: GER 3631;
Instructor: Morris, Leslie C
Description: One of the major questions that the course will ask is if there is such a thing as Jewish writing. Gilles Deleuze and Felix Guattari’s “Kafta: Toward a Minor Literature” will serve as the starting point for the course, for they propose a theory that seeks to explain how minority groups construct stories, novels, and poems within a major language. Therefore, when Jewish writers compose their works, they inevitably challenge majority assumptions in German, Austrian, and American culture. Not only do they undermine Jewish stereotypes embedded in the majority culture, but they also ask: What does it mean to be German, Austrian, and American? Can we define a national character? Is there really such a thing as national character? Jewish writers such as Kafka, Celan, Canetti, Broch, Hilsenrath, Malamud, Biller, Honigmann, Bellow, and Roth have developed remarkable affinities that cut across German, Austrian and American cultures, and it will be the purpose of this course to study these affinities and determine whether there is such a thing as Jewish writing. In addition, the course will deal with the major crises of the twentieth century that have compelled Jewish writers often to assume the role of outsider and rebel. Though this is not a course that deals with the Holocaust per se, it will analyze how anti-Semitism in Europe and America led to the destruction of European Jewry and how Jewish writers have responded to this catastrophe and continue to do so in new works.
Style: 15% Lecture, 85% Discussion.
Grading: 80% reports/papers, 20% class participation.

**JWST 3778 Jews of the Islamic Mediterranean and Christian Europe, 7th-17th Centuries**
3 credit(s); Credit will not be granted if credit has been received for: RELS 3078;
Instructor: Schroeter, Daniel J
Description: Student may contact the instructor or department for information.

**JWST 4001W Final Project, Writing Intensive**
A-F only, 1 credit(s); prerequisite concurrent enrollment 5xxx, JWSt major, permission of dir of undergrad studies; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

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**Communication**

111 Murphy Hall

**JOUR 1001 Introduction to Mass Communication**
A-F only, 3 credit(s); prerequisite Pre-jour or non-jour major; Meets CLE req of Social Sciences;
Instructor: Hansen, Kathleen Ann
Description: Historical, economic, political, legal, ethical, and social aspects of mass communication. Changing media environment of books, magazines, newspapers, records, movies, radio, television, and the Internet in global context. Review of the various media industries and issues faced by mass communications professionals.
Style: 66% Lecture. 33% Discussion.
Grading: 12% mid exam, 12% final exam, 10% reports/papers, 20% quizzes, 12% additional semester exams, 33% class participation.

**JOUR 1001 Introduction to Mass Communication**
A-F only, 3 credit(s); prerequisite Pre-jour or non-jour major; Meets CLE req of Social Sciences;
Instructor: Paul, Nora
Description: Student may contact the instructor or department for information.

**JOUR 1001H Honors: Introduction to Mass Communication**
A-F only, 3 credit(s); prerequisite Honors, pre-jour or non-jour major; Meets CLE req of Social Sciences;
Instructor: Sanders, Amy Kristin
Description: Student may contact the instructor or department for information.

**JOUR 3004W Information for Mass Communication**
A-F only, 3 credit(s); prerequisite Jou major or jour minor or approved IDIM major or ICP major or BIS major; prerequisites do not apply to IDL sections; Meets CLE req of Writing Intensive;
Instructor: Hansen, Kathleen Ann
Description: Student may contact the instructor or department for information.

**JOUR 3004W Information for Mass Communication**
A-F only, 3 credit(s); prerequisite Jou major or jour minor or approved IDIM major or ICP major or BIS major; prerequisites do not apply to IDL sections; Meets CLE req of Writing Intensive;
Instructor: Paul, Nora
Description: This course introduces the concept of the information strategy as it applies to mass communication. The strategies, techniques and resources discussed will apply to any type of mass communication message production; they will also apply to academic work such as term paper and project production. We are most concerned with the process of information gathering, evaluation and use. A case study format will be used to study this process in depth throughout the semester. The case study topic for this semester changes each semester and draws from current news issues for which examples abound in advertising, news and public relations. WebCT is used for all the course materials.
Style: 66% Lecture. 34% Discussion.
Grading: 16% mid exam, 16% final exam, 30% special projects, 12% class participation, 26% problem solving.
Exam Format: Multiple choice and true / false.

**JOUR 3004W Information for Mass Communication**
A-F only, 3 credit(s); prerequisite Jou major or jour minor or  
approved IDM major or ICP major or BIS major; prereqs do not apply to IDL sections; Meets CLE req of Writing Intensive; Instructor: Gloviczki, Peter Joseph Description: Student may contact the instructor or department for information.

JOUR 3005 Mass Media Effects
A-F only, 3 credit(s); prereq Non-jour major or [jour major, course approval in program plan] or [pre-jour, adviser approval]; Meets CLE req of Social Sciences; Instructor: Southwell, Brian G Description: Mass media have been alternately feared, bemoaned, used, and dismissed as tools to change beliefs, attitudes, and behavior. Together, we will explore a century’s worth of thinking as to how and when media might have such effects. We will approach this topic largely from a social science perspective, and will also discuss some of the advantages and limitations inherent in looking for effects in that way. Style: 60% Lecture, 10% Film/Video, 20% Discussion, 10% Small Group Activities. Grading: 30% mid exam, 30% final exam, 30% reports/papers, 10% class participation.

JOUR 3006 Visual Communication
A-F only, 3 credit(s); prereq Non-jour major or [jour major, course approval in program plan] or [pre-jour, adviser approval]; Instructor: Shelton, Ashleigh K. Description: Student may contact the instructor or department for information.

JOUR 3007 The Media in American History and Law: Case Studies
A-F only, 3 credit(s); prereq Non-jour major or [jour major, course appr on prog plan] or [pre-jour, adviser approval]; Meets CLE req of Historical Perspectives; Instructor: Dell’Orto, Giovanna Description: This course?certified as fulfilling the Historical Perspectives Core requirement?focuses on the questions of power, access and representation in the media, and their social, political, economic and technological contexts, in two specific historical periods. This semester, the course deals with the development of print and broadcast journalism, during the American Civil War era and the World Wars period, respectively. A third case study, parallel to both, explores the development of the African American press in those eras. While examining the evolution of the media and journalism, the course emphasizes the relevant legal and ethical issues, especially freedom of expression. The focus on a specific era is intended to give students an opportunity for in-depth study of the media in a given period. We will examine how historical knowledge is produced from artifacts (primary sources) that have remained from the past and we will discern between ?the past? as what happened and ?historical knowledge? as what we know about the past. We will use historical methods and sources to produce historical knowledge about the form, debates about, and role of media in the past. So as to provide students with core liberal education, the course is designed to teach not only a body of historical knowledge, but also how to engage critically important social issues such as the role of journalism in public life, the promise and challenges of free expression in a democracy, the role of the citizen in a democratic public sphere, the role of the media in a diverse society, and the process of discovering historical knowledge.

JOUR 3101 News Reporting and Writing
A-F only, 3 credit(s); prereq [3004W or Concurrent registration is required (or allowed) in 3004V or 3004V], [jour major or approved IDM major or ICP major or BIS major], typing skill; Credit will not be granted if credit has been received for: JOUR 3101H; Instructor: Golden, Gayle Celeste Description: This course teaches the basic skills needed to report and write news. The course emphasizes the ability to recognize news values as well as to write clearly, tersely, accurately and in correct Associated Press style about news events. Students will write a variety of stories, including spot news, obituaries, advances and news features. Skills taught include interviewing, attributing, using public records, setting stories in context and applying numbers correctly to tell stories. The course is for professional journalism students at the start of their major course work. Students also create and maintain online news logs to summarize, compare and analyze news coverage. Style: 60% Lecture, 40% Discussion. Grading: 5% mid exam, 70% reports/papers, 10% quizzes, 15% class participation. Exam Format: short answer

JOUR 3102 Conversion Journalism
A-F only, 3 credit(s); prereq [3004W or 3004V or Concurrent registration is required (or allowed) in 3004W or Concurrent registration is required (or allowed) in 3004V], [3101 or 3101H or Concurrent registration is required (or allowed) in 3101 or Concurrent registration is required (or allowed) in 3101H], [jour major or approved IDM major or ICP major or BIS major]; Instructor: Broeckert, Jerry Description: Student may contact the instructor or department for information.

JOUR 3102 Intermediate News Reporting
A-F only, 3 credit(s); prereq [3004W or 3004V or Concurrent registration is required (or allowed) in 3004W or Concurrent registration is required (or allowed) in 3004V], [3101 or 3101H or Concurrent registration is required (or allowed) in 3101 or Concurrent registration is required (or allowed) in 3101H], [jour major or approved IDM major or ICP major or BIS major]; Instructor: Mc Enroe, Paul Joseph Description: Student may contact the instructor or department for information.

JOUR 3112 Intermediate News Reporting
A-F only, 3 credit(s); prereq [3004W or 3004V], [3101 or 3101H], [jour major or approved IDM major or ICP major or BIS major]; Instructor: Anderson Jr, Gerald Description: Student may contact the instructor or department for information.

JOUR 3115 Publications Editing
A-F only, 3 credit(s); prereq [3004W or 3004V, 3101 or 3101H], [jour major or approved IDM major or ICP major or BIS major]; Instructor: Thiel-Stern, Shayla Description: Student may contact the instructor or department for information.

JOUR 3173W Magazine Writing
A-F only, 3 credit(s); prereq [3004W or 3304V, 3101 or 3101H], [jour major or approved IDM major or ICP major or BIS major]; prereqs do not apply to IDL sections; Meets CLE req of Writing Intensive; Instructor: Froiland, Paul V Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid policies. This course will teach you the concepts and skills of writing for magazines. You will learn how to identify a magazine's niche and how to market stories editors want. Through a series of writing assignments, all of which will be edited and rewritten, you will then learn how to market, develop, and write the most common types of magazine stories. In the end, you will have
some experience pitching a story to a publication, giving them the first step into that marketplace.

Style: 100% Web Based.

Grading: -5 writing assignments (72%) -5 analysis assignments (8%) -Story development assignments (20%)

JOUR 3173W Magazine Writing
A-F only, 3 credit(s); prereq [3004W or 3304V, 3101 or 3101H], [jour major or approved IDM major or ICP major or BIS major]; prereqs do not apply to IDL sections; Meets CLE req of Writing Intensive;
Instructor: Rosengren, John
Description: Student may contact the instructor or department for information.

JOUR 3201 Principles of Strategic Communication: Advertising
A-F only, 3 credit(s); prereq [3004V or Concurrent registration is required (or allowed) in 3004V or 3004W or Concurrent registration is required (or allowed) in 3004W], [jour major or design comm premajor or major or graphics design premajor or major or approved IDM major or ICP major or BIS major];
Instructor: Williams, Jennifer Lisa
Description: Student may contact the instructor or department for information.

JOUR 3201 Principles of Strategic Communication: Advertising
A-F only, 3 credit(s); prereq [3004V or Concurrent registration is required (or allowed) in 3004V or 3004W or Concurrent registration is required (or allowed) in 3004W], [jour major or design comm premajor or major or graphics design premajor or major or approved IDM major or ICP major or BIS major];
Instructor: Depue, Jacob Bjorn
Description: Student may contact the instructor or department for information.

JOUR 3202 Principles of Strategic Communication: Public Relations
A-F only, 3 credit(s); prereq [3004V or Concurrent registration is required (or allowed) in 3004V or 3004W or Concurrent registration is required (or allowed) in 3004W], [jour major or approved IDM major or ICP major or BIS major];
Instructor: Therkelsen, David Jon
Description: Student may contact the instructor or department for information.

JOUR 3241 Creative Strategy and Copywriting
A-F only, 3 credit(s); prereq [3004W or 3304V, 3201], [jour major or approved IDM major or ICP major or BIS major];
Instructor: Johnson, Jennifer M
Description: This course introduces students to creative strategic development and conceptual thinking in advertising. They will develop creative ideas and copy based on strategies, with particular emphasis on print. At the end of the term, successful students will be able to recognize solid advertising, develop an intelligent creative strategy, create concepts and copy, and present their ideas to others.
Style: 60% Lecture, 40% Discussion.
Grading: Team presentations account for 40% of final grade and individual quizzes, assignments, and participation account for 60% of final grade.
Exam Format: no standard format

JOUR 3251 Strategic Communication Research
A-F only, 3 credit(s); prereq [3004W or 3304V], [3159 or 3201 or 3202], [jour major or approved IDM major or ICP major or BIS major];
Instructor: Williams, Jennifer Lisa
Description: Student may contact the instructor or department for information.

JOUR 3251 Strategic Communication Research
A-F only, 3 credit(s); prereq [3004W or 3304V], [3159 or 3201 or 3202], [jour major or approved IDM major or ICP major or BIS major];
Instructor: Huh, Jisu
Description: Course Objectives: Strategic communication research helps provide information for advertisers, advertising agencies, and PR practitioners to understand their product, target audience, publics, and the factors which influence strategic communications to help them in making decisions. A major goal of this course is to teach you the importance of research in strategic communication and different types of research methods. Upon completion of this course, you should be able to: . Understand the role of research in strategic communication . Understand the strategic communication research process . Apply quantitative and qualitative research methods to a real-world strategic communication situation . Understand social issues relating to strategic communication research, including the ethics of the research. Teaching methods: lecture and discussion Textbook: Forliti-Campbell, Lisa (2001), Hitting the Sweet Spot, The Copy Workshop. Target audience: undergraduate, ad/PR majors
Style: 80% Lecture, 20% Discussion.
Grading: 25% mid exam, 25% final exam, 15% reports/papers, 25% special projects, 10% class participation.
Exam Format: a combination of true-false, multiple-choice, fill-in-the-blank, and short answer questions

JOUR 3279W Public Relations Writing and Campaign Tactics
A-F only, 3 credit(s); prereq [3004W or 3304V], [3159 or 3201 or 3202], [jour major or approved IDM major or ICP major or BIS major] or [professional jour track, instr consent ]; Meets CLE req of Writing Intensive;
Instructor: Nelson, Lynn Ingrid
Description: Student may contact the instructor or department for information.

JOUR 3279W Public Relations Writing and Campaign Tactics
A-F only, 3 credit(s); prereq [3004W or 3304V], [3159 or 3201 or 3202], [jour major or approved IDM major or ICP major or BIS major] or [professional jour track, instr consent ]; Meets CLE req of Writing Intensive;
Instructor: Sichko, Martha Jones
Description: Student may contact the instructor or department for information.

JOUR 3279W Public Relations Writing and Campaign Tactics
A-F only, 3 credit(s); prereq [3004W or 3304V], [3159 or 3201 or 3202], [jour major or approved IDM major or ICP major or BIS major] or [professional jour track, instr consent ]; Meets CLE req of Writing Intensive;
Instructor: Keiser, Eva Eileen
Description: Student may contact the instructor or department for information.

JOUR 3281 Basic Media Graphics
A-F only, 3 credit(s); prereq [3004V or 3004W or Concurrent registration is required (or allowed) in 3004W], [jour major or approved IDM major or ICP major or BIS major];
Instructor: Kelley, Debra S
Description: This lab-based course gives students an introduction to the basic principles of graphic design. Students are challenged to develop their own aesthetic sense and graphic design skills through the study and creation of effective communication tools. Students are expected to work through study guides in class and on their own to develop software technology skills necessary to complete assignments. Hands-on projects give students the opportunity to develop their skills in designing and producing traditional print publications and new media.
Style: 10% Lecture, 10% Discussion, 80% Laboratory. project-based course - 5 projects plus software tutorials
Grading: 16% mid exam, 80% special projects, 4% class participation.
Exam Format: multiple choice
approved IDIM major or ICP major or BIS major];
Instructor: West,Ariene K
Description: Student may contact the instructor or department for information.

JOUR 3321 Basic Media Graphics
A-F only, 3 credit(s); prereq [3004V or 3004W or Concurrent registration is required (or allowed) in 3004W], [jour major or approved IDIM major or ICP major or BIS major];
Instructor: Martin,Peter Lynn
Description: This class introduces students to the use of Graphics in digital media, students explore _basic_ digital imaging, how we do it, how we repurpose images and a basic investigation of some issues the new media technology brings to the content of our images. We will start with image creation/acquisition, using digital cameras, scanners, both film and flatbed, using Adobe’s PhotoShop software to modify the digital images. Assignments include Portrait, font choice, Resume, photo composite and finally, a project that investigates image intent, specifically, how the computer imaging environment affects the student's interpretation of the truth of the image they create. These projects set the tone for undertakings of creative discovery. The class is designed to provide a working knowledge of Adobe PhotoShop and basic aspects of both Quark Xpress or Adobe InDesign and Adobe GoLive programs as a basis to begin exploration of the opportunities that new media technology enables.
Style: 25% Lecture, 10% Discussion, 65% Laboratory.
Grading: 100% special projects.

JOUR 3321 Basic Media Graphics
A-F only, 3 credit(s); prereq [3004V or 3004W or Concurrent registration is required (or allowed) in 3004W], [jour major or approved IDIM major or ICP major or BIS major];
Instructor: Husom,David Harold
Description: Student may contact the instructor or department for information.

JOUR 3451 Electronic News Writing and Reporting
A-F only, 3 credit(s); prereq [3004V or 3004V], [3101 or 3101H], [jour major or approved IDIM major or ICP major or BIS major];
Instructor: Benson,Dana Richard
Description: Student may contact the instructor or department for information.

JOUR 3451 Electronic News Writing and Reporting
A-F only, 3 credit(s); prereq [3004V or 3004V], [3101 or 3101H], [jour major or approved IDIM major or ICP major or BIS major];
Instructor: Broekert, Jerry
Description: Student may contact the instructor or department for information.

JOUR 3552 Internet and Global Society
A-F only, 3 credit(s); prereq Non-jour major or [jour major, course appr on prog plan] or [pre-jour, adviser approval];
Instructor: Thompson,Melissa Emily
Description: Student may contact the instructor or department for information.

JOUR 3741 People of Color and the Mass Media
A-F only, 3 credit(s); prereq Non-jour major or [jour major, course appr on prog plan] or [pre-jour, adviser approval];
Meets CLE req of Diversity and Soc Justice US;
Instructor: Squires,Catherine R
Description: Student may contact the instructor or department for information.

JOUR 3745 Mass Media and Popular Culture
A-F only, 3 credit(s); prereq Non-jour major or [jour major, course appr on prog plan] or [pre-jour, adviser approval];
Instructor: Pedelty,Mark Holmes
Description: Mass Media and Popular Culture is an exploration of the roles various media play in our lives. It is a study of how, why, and to what end popular music, films, television, games, and advertisements are produced and used. "Mediation" is examined as a process through which artists, producers, marketers, critics, and audiences create meaning. An ethical question guides us: what good can be done with, and in, media?
Style: 30% Lecture, 30% Film/Video, 10% Discussion, 20% Student Presentation, 10% Web Based.
Grading: 15% mid exam, 20% final exam, 40% quizzes, 25% in-class presentation. In-class presentation is the outcome of a group or solo media project. Each student can choose whether to do the project alone or in a group.
Exam Format: multiple choice

JOUR 3771 Mass Media Ethics: Moral Reasoning and Case Studies
A-F only, 3 credit(s); prereq Non-jour major or [jour major, course appr on prog plan] or [pre-jour, adviser approval];
Meets CLE req of Civic Life and Ethics;
Instructor: Ison, Christopher John
Description: This course will help you build a foundation for making ethical decisions under the kinds of difficult circumstances that journalists and strategic communication professionals face every day. The instructor won’t be telling you the right decisions. (Not most of the time, anyway.) You get to decide what constitutes the right decision. Most of our discussion will focus on the process we should use to make good, ethical judgments. That requires all of us to explore, discuss and debate the way we make decisions and the consequences. This will happen in constant class discussion that everyone is expected to join. We’ll talk about ethical theory and real-life case studies in journalism, advertising and public relations. Some will be historical examples; others will be more recent cases, and some that surface during the semester That means students should be reading the newspapers and other media every day. It also means that attendance and class participation is required in this course. If you’re shy about asking questions and contributing comments, that’s certainly not uncommon. But get over it. It’s time to break out of your shell. We’ll hear regularly from guest speakers from the news and strategic communications fields, and we’ll use the University’s Vista site as a source for much of our reading.

JOUR 3776 Mass Communication Law
A-F only, 3 credit(s); prereq Jour major or jour minor or approved IDIM major or ICP major or BIS major or instr consent ;
Instructor: Kirtley, Jane E
Description: Course objective: to allow undergraduates to gain a basic understanding of mass media law by reading and analyzing significant court decisions and statutes affecting legal rights and privileges of journalists. We will survey the development of First Amendment media law, including prior restraints, libel, privacy, reporters' privilege, access to courts and to government information, and government regulation of electronic journalism. Course requires thorough preparation by reading primary source material as well as assigned textbook.
Students must submit &quot;briefs&quot; (1-2 pages) of selected cases, prepare a short (5-10 pages) original research paper, write their own opinion in a First Amendment case (4-6 pages), and take two exams. Class participation is strongly encouraged. Format is primarily lecture/socratic dialogue.
Style: 65% Lecture, 35% Discussion.
Grading: 25% midterm exam, 35% final exam, 40% reports/papers. Case briefs worth 15% of grade; opinion worth 15%; paper worth 20%. Exceptional class participation can raise grade.
Exam Format: Essay, with some short answer, multiple choice, true/false

JOUR 3796 Mass Media and Politics
A-F only, 3 credit(s); prereq Non-jour major or jour major with course appr on prog plan or pre-jour with adviser approval;
Instructor: Rash, John Richard
Description: Student may contact the instructor or department for information.

JOUR 3993 Directed Study

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Doyle, Kenneth Bruce
Description: Student may contact the instructor or department for information.

JOUR 3993 Directed Study
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Sullivan, Dan
Description: Student may contact the instructor or department for information.

JOUR 3993 Directed Study
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Ison, Christopher John
Description: Student may contact the instructor or department for information.

JOUR 3993 Directed Study
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Faber, Ronald J
Description: Student may contact the instructor or department for information.

JOUR 3993 Directed Study
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Schwartz, Dona
Description: Student may contact the instructor or department for information.

JOUR 3993 Directed Study
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Tims, Albert R
Description: Student may contact the instructor or department for information.

JOUR 3993 Directed Study
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Wackman, Daniel Bruce
Description: Student may contact the instructor or department for information.

JOUR 3993 Directed Study
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Hansen, Kathleen Ann
Description: Student may contact the instructor or department for information.

JOUR 3993 Directed Study
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Sanders, Amy Kristin
Description: Student may contact the instructor or department for information.
JOUR 3993 Directed Study
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Thiel-Stern, Shayla
Description: Student may contact the instructor or department for information.

JOUR 3996 Directed Internship
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq Jour major, dept consent;
Instructor: Benson, Dana Richard
Description: Student may contact the instructor or department for information.

JOUR 3996 Directed Internship
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq Jour major, dept consent;
Instructor: Golden, Gayle Celeste
Description: Student may contact the instructor or department for information.

JOUR 4193 Walter H Brovold and John Cameron Sim
Community Newspaper Practicum
A-F only, 3 credit(s); prereq [3004W or 3004V], [3101 or 3101H or 3201], [jour major or approved IDIM or BIS or ICP];
Instructor: Schultz, Lee Ann
Description: Grading: 40% reflection paper, 30% class participation, 30% other evaluation. 30 percent of the intern's grade will be determined by the publication editor to which she or he is assigned.

JOUR 4242 Advertising Portfolio Development
A-F only, 3 credit(s); prereq [3004W or 3004V], 3201, 3241, [jour major or approved IDIM or ICP or BIS];
Instructor: Johnson, Jennifer M
Description: This course introduces students to advertising creative development and conceptual thinking. Students will work in teams that include account planners, copywriters, and art directors. They will develop creative strategy briefs based on their strategies. At the end of the term, successful students will be able to apply practical creativity to advertising ideas and will have a basic understanding of how to put a book together to get a job in advertising.
Style: 30% Lecture, 20% Laboratory. This class is highly interactive. Students must contribute to class creative exercises and assignments during each meeting.
Grading: A midterm creative review and a final creative review, by advertising professionals, will help determine final grades. Completion of assignments and level of improvement will also weigh heavily on grade. Student participation is critical.

JOUR 4259 Cases in Strategic Planning and Thinking
A-F only, 3 credit(s); prereq [3004W or 3004V], [3159 or 3201 or 3202], 3251, [jour major or approved IDIM major or ICP major or BIS major];
Instructor: Nelson, Lynn Ingrid
Description: Student may contact the instructor or department for information.

JOUR 4259 Cases in Strategic Planning and Thinking
A-F only, 3 credit(s); prereq [3004W or 3004V], [3159 or 3201 or 3202], 3251, [jour major or approved IDIM major or ICP major or BIS major];
Instructor: Kaiser, Kent Luther
Description: Student may contact the instructor or department for information.

JOUR 4259 Cases in Strategic Planning and Thinking
A-F only, 3 credit(s); prereq [3004W or 3004V], [3159 or 3201 or 3202], 3251, [jour major or approved IDIM major or ICP major or BIS major];
Instructor: Leighton, Gordon
Description: A course in strategic communications management with the objective of enabling students to develop their abilities in brand communication, issue identification, research, analysis, strategy development, and tactical campaign implementation -- as well as development of presentation skills to convey those abilities. This course is heavily oriented toward implementing and managing professional communication campaigns using a case study perspective.
Style: 30% Lecture, 60% Discussion. Student presentations.
Grading: 25% mid exam, 25% final exam, 25% reports/papers, 25% special projects.
Exam Format: multiple choice, T/F, short answer

JOUR 4249 Cases in Strategic Planning and Thinking
A-F only, 3 credit(s); prereq [3004W or 3004V], [3159 or 3201 or 3202], 3251, [jour major or approved IDIM major or ICP major or BIS major];
Instructor: KucharSKI, Matthew John
Description: A comprehensive review of current and classic case studies in strategic communications planning and thinking. Covers a wide range of communications disciplines, scenarios and industries.

JOUR 4249 Cases in Strategic Planning and Thinking
A-F only, 3 credit(s); prereq [3004W or 3004V], [3159 or 3201 or 3202], 3251, [jour major or approved IDIM major or ICP major or BIS major];
Instructor: Reid, Victoria Jane
Description: Student may contact the instructor or department for information.

JOUR 4249 Cases in Strategic Planning and Thinking
A-F only, 3 credit(s); prereq [3004W or 3004V], [3159 or 3201 or 3202], 3251, [jour major or approved IDIM major or ICP major or BIS major];
Instructor: Moorhouse, Bruce Thompson
Description: Student may contact the instructor or department for information.

JOUR 4261 Advertising: Media Strategy
A-F only, 3 credit(s); prereq [3004W or 3004V], [3159 or 3201 or 3202], 3251, [jour major or approved IDIM major or ICP major or BIS major];
Instructor: Herzog, Earl Alphonse
Description: Student may contact the instructor or department for information.

JOUR 4263 Strategic Communication Campaigns
A-F only, 4 credit(s); prereq [3004W or 3004V], [3201 or 3202], 3251, [3179 or 3241 or 3279 or 4159 or 4259 or 4261], MKTG 3001, [jour major or approved IDIM major or ICP major or BIS major];
Instructor: Strother, Patrick J
Description: Student may contact the instructor or department for information.

JOUR 4263 Strategic Communication Campaigns
A-F only, 4 credit(s); prereq [3004W or 3004V], [3201 or 3202], 3251, [3179 or 3241 or 3279 or 4159 or 4259 or 4261], MKTG 3001, [jour major or approved IDIM major or ICP major or BIS major];
Instructor: Weiss, Carol Ruth
Description: An in-depth look at all aspects of strategic
campaign development, culminating in the development of a strategically sound communications campaign. Emphasis on "real life" examples of campaigns, their creation and development. All essentials of developing strategic communication campaigns are covered, including advertising strategy and positioning, developing creative, consumer research, planning and setting objectives, media strategies, public relations programs, promotion, and targeting and segmentation. Course involves team work, multi-media presentations and class discussion.

JOUR 4263 Strategic Communication Campaigns  
A-F only, 4 credit(s); prerequisite [3004W or 3004V], [3201 or 3202], 3251, [3179 or 3241 or 3279 or 4159 or 4259 or 4261], MKTG 3001, [jour major or approved IDIM major or ICP major or BIS major];  
Instructor: Pounds, James E  
Description: Student may contact the instructor or department for information.

JOUR 4263 Strategic Communication Campaigns  
A-F only, 4 credit(s); prerequisite [3004W or 3004V], [3201 or 3202], 3251, [3179 or 3241 or 3279 or 4159 or 4259 or 4261], MKTG 3001, [jour major or approved IDIM major or ICP major or BIS major];  
Instructor: Moorhouse, Bruce Thompson  
Description: Student may contact the instructor or department for information.

JOUR 4274W Advertising in Society  
A-F only, 3 credit(s); prerequisite jour major or mass comm minor or approved IDIM major or ICP major or BIS major  
Credit will not be granted if the student has already completed Jour 4274; Meets CLE req of Writing Intensive;  
Instructor: Wackman, Daniel Bruce  
Description: Advertising in Society introduces students to a variety of issues regarding ways in which advertising is linked to society. It examines these issues from several perspectives: social, cultural, economic, legal, and ethical. The course differs from professionally-oriented classes which study advertising from the perspective of a professional attempting to develop effective advertising. As a writing intensive course, Advertising in Society helps students learn how to conduct thorough analyses of issues, develop positions on issues, and present coherent and convincing arguments for positions they have taken. We begin the course with a four week section focusing on one issue involving the relationship between advertising and society. The issue chosen illustrates the complex, multifaceted nature of advertising–society issues. The next six weeks focus on the role of advertising in the economic system and the ways in which advertising is regulated to try to insure fair competition and to protect consumers. The last five weeks focus on social criticisms of advertising and the social responsibilities of advertising practitioners.  
Style: 35% Lecture, 65% Discussion.  
Grading: 24% mid exam, 24% final exam, 43% reports/papers, 6% special projects, 3% class participation.  
Exam Format: multiple choice, short answer, and essay

JOUR 4302 Electronic Photojournalism  
A-F only, 3 credit(s); prerequisite [3004W or 3004V], 3102, [jour major or approved IDIM major or ICP major or BIS major];  
Instructor: Zander, Mike  
Description: JOUR 4302 is a basic skills course, designed to teach a journalism student the fundamentals of electronic photojournalism as practiced by newsrooms across many forms of media. The course will: 1) create a foundation for understanding the historical, technical, aesthetic and ethical development of journalistic photography; 2) discuss and practice the principles of communication as embodied in the profession of photojournalism, including how to: a) conceptualize and plan photo shoots, photo stories, and essays. b) research story ideas, develop shooting strategies, gain access to subjects. c) structure and present visual narratives in print and on the internet. d) enable a student to acquire some of the camera and computer skills necessary to practice the craft of electronic photojournalism, including some digital darkroom processing. e) involve students in executing photo assignments and experiencing frequent critiques, thus beginning the creation of a portfolio of journalistic photography suitable for job seeking. The content and direction of this course will not presume great prior knowledge or skills. However, students with experience may proceed to more distant horizons. All photographic assignments will all be done with digital equipment. The primary focus will be on achieving access, capturing content and accomplishing journalistic story telling. The course will refer to other reporting competencies such as: technology, press responsibility, cultural sensitivity and ethics.  
Style: 30% Lecture, 20% Discussion, 50% Laboratory.  
Grading: 10% quizzes, 20% in-class presentation, 60% class participation, 60% problem solving.  
Exam Format: performance on problem solving IS exam

JOUR 4451 Capstone: Advanced Electronic News Writing and Reporting  
A-F only, 3 credit(s); prerequisite [3004W or 3004V], [3101 or 3101H], 3121, 3451, [jour major or approved IDIM major or ICP major or BIS major];  
Instructor: Benson, Dana Richard  
Description: Student may contact the instructor or department for information.

JOUR 4452 Capstone: Electronic Newscast Producing  
A-F only, 3 credit(s); prerequisite [3004W or 3004V], [3101 or 3101H], 3121, 3451, [jour major or approved IDIM major or ICP major or BIS major];  
Instructor: Benson, Dana Richard  
Description: Student may contact the instructor or department for information.

JOUR 4551 New Media Culture  
A-F only, 3 credit(s); prerequisite Non-jour major or jour major with course appr on prog plan or pre-jour with adviser approval; Meets CLE req of Arts/Humanities; meets CLE req of Technology and Society;  
Instructor: Thiel-Stern, Shayla  
Description: Student may contact the instructor or department for information.

JOUR 4721 Mass Media and U.S. Society  
A-F only, 3 credit(s); prerequisite Non-jour major or jour major with course appr on prog plan or pre-jour with adviser approval; Meets CLE req of Social Sciences;  
Instructor: Sullivan, Dan  
Description: Are the news media doing a good job? How can you tell? Does it matter? Is The Daily Show the best news program on television? Why or why not? Most people seem to have an opinion about all of these questions. Most discussions seem to center on one of four themes: 1) who owns the media and what they care about; 2) media credibility and bias; 3) whether entertainment is replacing or enhancing information; and 4) to what extent is the Internet changing everything about the way the media work. Mass Media and U.S. Society will explore the validity and importance of these themes in terms of what roles can the media play in society, what roles does it play, and how have those roles changed over time. The course will draw on ideas from various social sciences to develop tools for discussing a number of specific issues related to these themes. The class format will be a mix of lecture and discussion. Required reading for the course will center on the one text for the course: The Press. There will be a midterm, a final and 3-4 short writing exercises.  
Style: 60% Lecture, 40% Discussion.  
Grading: 30% mid exam, 30% final exam, 30% reports/papers, 10% class participation.  
Exam Format: short answer and short essay

JOUR 4721H Mass Media and U.S. Society  
A-F only, 3 credit(s); prerequisite Honors, [non-jour major or [jour major, course appr on prog plan] or [pre-jour, adviser approval]];  
Instructor: Sullivan, Dan
Description: Are the news media doing a good job? How can you tell? Does it matter? Is The Daily Show the best news program on television? Why or why not? Most people seem to have an opinion about all of these questions. Most discussions seem to center on one of four themes: 1) who owns the media and what they care about; 2) whether the news media are becoming more or less credible and/or biased; 3) whether entertainment is replacing or enhancing information in news programming; and 4) how much, if at all, is the Internet changing everything about the way the media work. Mass Media and U. S. Society will explore the validity and importance of these themes in terms of what roles can the media play in society, what roles does it play, and how have those roles have changed over time. The course will draw on ideas from various social sciences to develop tools for discussing a number of specific issues related to these themes.

Style: 40% Lecture, 40% Discussion, 20% Small Group Activities.

JOUR 4993H Honors: Projects
A-F only, 3 credit(s); prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Williams, Jennifer Lisa
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Projects
A-F only, 3 credit(s); prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Faber, Ronald J
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Projects
A-F only, 3 credit(s); prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Schwartz, Dona
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Projects
A-F only, 3 credit(s); prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Tims, Albert R
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Projects
A-F only, 3 credit(s); prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Hanser, Kathleen Ann
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Projects
A-F only, 3 credit(s); prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Leighton, Gordon
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Projects
A-F only, 3 credit(s); prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Gooden, Gayle Celeste
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Projects
A-F only, 3 credit(s); prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Kimley, Jane E
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Projects
A-F only, 3 credit(s); prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Southwell, Brian G
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Projects
A-F only, 3 credit(s); prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Eighmey, John
Description: Student may contact the instructor or department for information.

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for information.

**JOUR 4993H Honors: Projects**
A-F only, 3 credit(s); prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Huh, Jisu
Description: Student may contact the instructor or department for information.

**JOUR 4993H Honors: Projects**
A-F only, 3 credit(s); prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Yzer, Marco
Description: Student may contact the instructor or department for information.

**JOUR 5131 Capstone: In-Depth Reporting**
A-F only, 3 credit(s); prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Johnson, Jennifer M
Description: Student may contact the instructor or department for information.

**JOUR 5777 Contemporary Problems in Freedom of Speech and Press**
A-F only, 3 credit(s); prereq Jour major or jour minor or approved IDIM major or ICP major or BIS major; Credit will not be granted if credit has been received for: LAW 6030;
Instructor: Kirtley, Jane E
Description: Course objective: to consider whether and how growing concerns about privacy and national security will affect traditional First Amendment legal theories. We will read and analyze significant court decisions and statutes, as well as some international initiatives, and consider their impact on U.S. law governing prior restraints, newsgathering and dissemination, access to courts and government information, and government regulation of electronic communications. This course is aimed at upper-level undergraduates and graduate students with a background in First Amendment, media and/or constitutional law (such as JOUR 3776 or equivalent). Course includes instruction in basic legal research techniques. Thorough preparation and class participation is required of all students in this seminar-format course.
Style: 10% Lecture, 75% Discussion. Student presentations of papers at the end of the semester.
Grading: 15% mid exam, 50% final exam, 20% reports/papers, 10% in-class presentation, 25% class participation.
Exam Format: Essay

**JOUR 5990 Special Topics in Mass Communication: Professional: Investigative Journalism & Bioethics**
A-F only, 3 credit(s), max credits 6; prereq Jour major or approved IDIM major or ICP major or BIS major;
Instructor: Elliott Jr, Bruce Carleton
Description: This seminar will explore the links between bioethics and journalism, examining classic and contemporary works of investigative health journalism, works of literary non-fiction related to medicine, memoirs by doctors and medical students, and investigative work by bioethicists and ethnographers. It will also examine citizen muckraking, non-profit investigative journalism, the public relations industry, the decline of print journalism and the rise of digital media, and how these developments are shaping the relationship between bioethicists and the press.

**JOUR 5999 Directed Study**
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed; prereq [Jour major or jour minor or approved IDIM major or ICP major or BIS major]; GPA of at least 3.00, college consent, dept consent, instr consent;
Instructor: Doyle, Kenneth Owen
Description: Student may contact the instructor or department for information.

**JOUR 5999 Directed Study**
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed; prereq [Jour major or jour minor or approved IDIM major or ICP major or BIS major]; GPA of at least 3.00, college consent, dept consent, instr consent;
Instructor: Sullivan, Dan
Description: Student may contact the instructor or department for information.
JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Leighton,Gordon  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Pedelty,Mark Holmes  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Schwartz,Dona  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Tims,Albert R  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Wackman,Daniel Bruce  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Hansen,Kathleen Ann  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Leighton,Gordon  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Ison,Christopher John  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Kirtley,Jane E  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Southwell,Brian G  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Eighmey,John  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Huh,Jisu  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Yzer,Marco  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Squires,Catherine R  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Sanders,Amy Kristin  
Description: Student may contact the instructor or department  
for information.

JOUR 5993 Directed Study  
A-F only, 1-3 credit(s), max credits 6, 6 completions allowed;  
prereq [Jour major or jour minor or approved IDIM major or  
ICP major or BIS major], GPA of at least 3.00, college  
consent , dept consent , instr consent ;  
Instructor: Thiel-Stern,Shayla  
Description: Student may contact the instructor or department  
for information.
JOUR 8001 Studies in Mass Communication I
A-F only, 3 credit(s);
Instructor: Southwell,Brian G
Description: Student may contact the instructor or department for information.

JOUR 8002 Studies in Mass Communication II
A-F only, 3 credit(s); prereq 8001;
Instructor: Sanders,Amy Kristin
Description: Student may contact the instructor or department for information.

JOUR 8003 The Changing Media Environment
A-F only, 3 credit(s); prereq Journalism graduate students;
Instructor: Huh,Jisu
Description: Student may contact the instructor or department for information.

JOUR 8200 Communication Strategy Research in Rapidly Changing and Complex Media Environments
A-F only, 3 credit(s); prereq Strat Comm MA grad major;
Instructor: Eighmey,John
Description: Student may contact the instructor or department for information.

JOUR 8201 Factors Affecting Communication Strategy
A-F only, 3 credit(s); prereq Strat Comm MA grad major;
Instructor: Leighton,Gordon
Description: Student may contact the instructor or department for information.

JOUR 8204 Measuring the Effectiveness of Strategic Communication Campaigns
A-F only, 3 credit(s); prereq 8203, Strat Comm MA grad major;
Instructor: LaMarre PhD,Heather Lyn
Description: Student may contact the instructor or department for information.

JOUR 8620 Seminar: Advertising Research
A-F only, 3 credit(s), max credits 12, 4 completions allowed;
prereq 5251 or instr consent ;
Instructor: Faber,Ronald J
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Doyle,Kenneth Owen
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Sullivan,Dan
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Pedelty,Mark Holmes
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Ison,Christopher John
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Dell'Orto,Giovanna
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Faber,Ronald J
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Schwartz,Dona
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Tims,Albert R
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Wackman,Daniel Bruce
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Southwell,Brian G
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Doyle,Kenneth Owen
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Sullivan,Dan
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Pedelty,Mark Holmes
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Ison,Christopher John
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Dell'Orto,Giovanna
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Faber,Ronald J
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Schwartz,Dona
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Tims,Albert R
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Wackman,Daniel Bruce
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Southwell,Brian G
Description: Student may contact the instructor or department for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite Graduate mass comm major or minor, instr consent, dept consent.
Instructor: Hansen, Kathleen Ann
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite Graduate mass comm major or minor, instr consent, dept consent.
Instructor: Leighton, Gordon
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite Graduate mass comm major or minor, instr consent, dept consent.
Instructor: Golden, Gayle Celeste
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite Graduate mass comm major or minor, instr consent, dept consent.
Instructor: Kirtley, Jane E
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite Graduate mass comm major or minor, instr consent, dept consent.
Instructor: Southwell, Brian G
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite Graduate mass comm major or minor, instr consent, dept consent.
Instructor: Eighmey, John
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite Graduate mass comm major or minor, instr consent, dept consent.
Instructor: Huh, Jisu
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite Graduate mass comm major or minor, instr consent, dept consent.
Instructor: Yzer, Marco
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite Graduate mass comm major or minor, instr consent, dept consent.
Instructor: Squires, Catherine R
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite Graduate mass comm major or minor, instr consent, dept consent.
Instructor: Thiel-Stern, Shayla
Description: Student may contact the instructor or department for information.

Instructor: Sanders, Amy Kristin
Description: Student may contact the instructor or department for information.

JOUR 8993 Directed Study
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite Graduate mass comm major or minor, instr consent, dept consent.
Instructor: Hogan, Timothy M
Description: The Army's model of physical fitness training is used to address five aspects of fitness in the context of running, weight training, strength exercise, circuit training, and team sport activities. Students are organized into groups of similar fitness levels.

KIN 1050 Beginning Military Physical Fitness Training
A-F only, 1 credit(s), max credits 4, 4 completions allowed;
Instructor: Rodgerson, Richard W
Description: The course is designed to provide an introductory overview of play behavior across species, cultures and behavioral settings. Topics include the physical and psychological development of play, sports and games, toy and playground design. Emphasis is on functional relationships between play and learning in educational and recreational environments.

KIN 1375 Play Behavior
3 credit(s);
Instructor: Bhalla, Jennifer Anita
Description: Professional practice and disciplinary dimensions of kinesiology, recreation, and sport. Subdisciplines, relevant issues, practical applications.

KIN 1871 Survey of Kinesiology, Recreation, and Sport
A-F only, 3 credit(s); Meets CLE req of Social Sciences;
Instructor: Ingraham, Stacy Jean
Description: This class addresses current health and wellness issues at the individual, local and global levels. The components of wellness involve: physical, social, emotional, intellectual, spiritual, environmental and financial health. The goal of the class is to develop strategies that improve quality of life throughout life expectancy. This is an interactive class through lecture. The target audience for this class is students desiring a healthy and productive life.
Grade: 80% Lecture, 15% Discussion.
Grading: 14% mid exam, 14% final exam, 29% reports/papers, 3% quizzes, 23% written homework, 10% reflection paper, 7% in-class presentation.
Exam Format: Multiple choice / T-F

KIN 3001 Lifetime Health and Wellness
A-F only, 3 credit(s); Meets CLE req of Social Sciences;
Instructor: Statt, Eric H
Description: Overview of health and wellness, including physical, emotional, intellectual, spiritual, social, environmental, and financial health. Societal changes and the influences of these changes on the general health and wellness of diverse populations.

KIN 3027 Human Anatomy for Kinesiology Students
A-F only, 3 credit(s);
Instructor: Blitz, George Robert
Description: Introduction to human anatomy. Emphasizes musculoskeletal anatomy germane to athletic training,

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biomechanics, exercise physiology, motor learning/development.

KIN 3027 Human Anatomy for Kinesiology Students
A-F only, 3 credit(s);
Instructor: Blitz, George Robert
Description: Introduction to human anatomy. Emphasizes musculoskeletal anatomy germane to athletic training, biomechanics, exercise physiology, motor learning/development.

KIN 3027 Human Anatomy for Kinesiology Students
A-F only, 3 credit(s);
Instructor: Haag MS, Juergen
Description: Introduction to human anatomy. Emphasizes musculoskeletal anatomy germane to athletic training, biomechanics, exercise physiology, motor learning/development.

KIN 3050 Advanced Military Physical Fitness Training
A-F only, 1 credit(s), max credits 4, 4 completions allowed; prerequisite 4 cr or 1050 or instr consent;
Instructor: Hogan, Timothy M
Description: The Army’s model of physical fitness training is used to address five aspects of fitness in the context of running, weight training, strength exercise, circuit training, and team sport activities. Students are organized into groups of similar fitness levels.

KIN 3112 Introduction to Biomechanics
A-F only, 4 credit(s); prerequisite [PHYS 1101W or PHYS 1201W or PHYS 1301W or PHYS 1401W] or [3027 or 3111 or ANAT 3001 or ANAT 3601 or ANAT 3611 or INMD 3001 or INMD 3601];
Instructor: Konczak, PhD, Juergen
Description: This is an introductory course to biomechanics. The course consists of a weekly lecture and a laboratory session. The lecture portion of the course introduces basic concepts of physics and applies them to the analysis of human motion. It expands the knowledge students have gained in human anatomy by relating anatomy to human motor function. The laboratory sessions are designed to provide hands-on experiences and to familiarize students with the array of instrumentation used for biomechanical analysis. Basic knowledge of trigonometry and algebra is needed. This course is required for majors in kinesiology. It is also suitable for students interested in careers in the health sciences, biology, and biomedical engineering.
Style: 60% Lecture, 10% Discussion, 30% Laboratory.
Grading: 25% mid exam, 30% final exam, 25% laboratory evaluation, 20% other evaluation, six-week exam
Exam Format: A mix of multiple choice, essay questions

KIN 3113 First Responder for Coaches and Athletic Trainers
A-F only, 3 credit(s);
Instructor: McNeil MA, Mary Ann
Description: This nationally recognized curriculum is taught according to the standards of the Department of Transportation (USDOT). It is presented in an interactive and small group format to prepare students to work at the level of First Responder, the first level in the EMS chain of emergency care delivery. Certification includes: AHA-BLS for Health Care Providers and USDOT First Responder. Includes: Patient assessment, airway management, trauma care and critical thinking.
Style: 30% Lecture, 5% Film/Video, 30% Laboratory, 30% Small Group Activities, 5% Guest Speakers. This course is scenario based learning. Every class will contain 1/2 didactic presentations, 1/2 activities.
Grading: 20% final exam, 20% quizzes, 10% in-class presentation, 25% class participation, 25% laboratory evaluation. Student may not miss >3 class sessions. This will result in dismissal from the course.
Exam Format: Combination written/practical skills demonstration.

KIN 3114 Prevention and Care of Athletic Injuries
A-F only, 3 credit(s); prerequisite [3027 or 3111], CEHD student or instr consent;
Instructor: Osgood, Chad Thomas
KIN 3126W Sport and Exercise Psychology
A-F only, 3 credit(s); prerequisite KIN major or instr consent;
Meets CLE req of Writing Intensive;
Instructor: Franklin, Ayanna N
Description: Thoughts, feelings, and behaviors of people in physical activity contexts. Foundations approach to theory/research in sport and exercise psychology.
KIN 3126W Sport and Exercise Psychology
A-F only, 3 credit(s); prerequisite KIN major or instr consent;
Meets CLE req of Writing Intensive;
Instructor: Kipp, Lindsey Erin
Description: Thoughts, feelings, and behaviors of people in physical activity contexts. Foundations approach to theory/research in sport and exercise psychology.
KIN 3131W History and Philosophy of Sport
A-F only, 3 credit(s); prerequisite KIN major or instr consent;
Meets CLE req of Writing Intensive;
Instructor: Thul, Chelsey Marie
Description: Introductory description and interpretation of the historical and philosophical development of physical education and sport from primitive societies to 20th century civilization.
KIN 3179 Track and Field Coaching Theory and Skill Development  
**A-F only, 2 credit(s); prereq [Enrolled in coaching program or KIN major or instr consent ], skills sufficient for participating in drills/game/match/contest for demonstration/teaching purposes;**  
**Instructor:** Lundstrom, Christopher J  
**Description:** Coaching theory and skill development necessary to coach track and field.

KIN 3327 Teaching Physical Education in the Elementary School  
**A-F only, 2 credit(s); prereq Elem ed major;**  
**Instructor:** Mooers, Nancy Eileen Ro  
**Description:** This course is designed for the elementary (K-8) classroom teacher. The course is activity based and designed to give the classroom teacher the ability to engage their students in age appropriate, energizing activities. Both the classroom and the gymnasium will be used for instruction and micro-teaching. Physical education classes in the gymnasium will be active while experiencing current curriculum and methodology. Emphasis will focus on the importance of regular and active physical education to the total school curriculum, with the inclusion of the health, social, and emotional benefits for the child. Elements of an effective quality physical education program will be included, such as, knowledge about the growing child, management skills, curriculum, lesson plan design, lesson presentation, communication, and age appropriate activities. Techniques to enhance communication, collaboration and integration between the physical education teacher and the classroom teacher, meeting special needs, and community involvement are also regularly addressed.  
**Style:** 25% Lecture, 15% Discussion. Teacher modeling with student participation and student micro-teaching  
**Grading:** 40% reports/papers, 15% special projects, 20% in-class presentation, 25% class participation.  
**Exam Format:** No exams, performance assessment only

KIN 3385 Human Physiology  
**A-F only, 4 credit(s); prereq [[KIN 3027 or ANAT 3001 or ANAT 3601 or ANAT 3611], KIN major] or instr consent ;**  
**Instructor:** Blitz, George Robert  
**Description:** Functional/integrative approach organized by level of description, from molecular genetics to dynamic movement/clinical conditions. Cellular mechanisms for major physiological functions. Exercise, fitness, health, growth.

KIN 3505 Intro to Human-Centered Design  
**3 credit(s); Credit will not be granted if credit has been received for: KIN 5505;**  
**Instructor:** Smith, Thomas J  
**Description:** Human-centered design (also termed user-centered design, usability engineering, human engineering or universal design) is an interdisciplinary area of design study that focuses on how design can be tailored to address, accommodate, and meet human expectations, capabilities, needs, and limitations. The rationale for the course is that: ‘good design makes things work better and last longer, helps make people and business more productive, and reduces discomfort and waste.’ The basic premise for the course is that ‘good’ design means human-centered design (HCD). The course will address this premise from a number of different perspectives, considering HCD of fabricated artifacts, human-computer interfaces, built environments, and complex sociotechnical and...
KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent
Instructor: Browning,Stephanie
Description: Student-selected clinical or research experience.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent
Instructor: LaVois,Nicole Marie
Description: Student-selected clinical or research experience.

KIN 3696 Supervised Practical Experience
S-N only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent
Instructor: Buyssse,Jo Ann
Description: On-the-job supervised practical experience in the fields of sport and exercise under a specialist in a particular area of study or emphasis.

KIN 3696 Supervised Practical Experience
S-N only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent
Instructor: Ingraham,Stacy Jean
Description: On-the-job supervised practical experience in the fields of sport and exercise under a specialist in a particular area of study or emphasis.

KIN 3696 Supervised Practical Experience
S-N only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent
Instructor: Hoffman,Brandi L
Description: On-the-job supervised practical experience in the fields of sport and exercise under a specialist in a particular area of study or emphasis.

KIN 3696 Supervised Practical Experience
S-N only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent
Instructor: Bhalla,Jennifer Anita
Description: On-the-job supervised practical experience in the fields of sport and exercise under a specialist in a particular area of study or emphasis.

KIN 3696 Supervised Practical Experience
S-N only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent
Instructor: Richardson,Tiffany
Description: On-the-job supervised practical experience in the fields of sport and exercise under a specialist in a particular area of study or emphasis.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent
Instructor: Biltz,George Robert
Description: Student-selected clinical or research experience.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent
Instructor: Smith,Thomas J
Description: Directed study in a selected area agreed to by student and instructor, with an emphasis on the areas of human factors/ergonomics, motor performance and behavior, and kinesiology of human systems.
Style: 100% Discussion.
Grading: 100% special projects.
Exam Format: no exams

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent
Instructor: Ejernsen,Diane
Description: For Kinesiology majors who wish to study a topic or problem under tutorial guidance.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent
Instructor: Wiese-Bjornstal PhD,Diane
Description: For Kinesiology majors who wish to study a topic or problem under tutorial guidance.
KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent;
Instructor: Stoffregen, Thomas
Description: For Kinesiology majors who wish to study a topic or problem under tutorial guidance.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent;
Instructor: Ross, Stephen D
Description: Student-selected clinical or research experience. Students enrolled in the sport management program cannot use directed readings for any practicum experience.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent;
Instructor: Kihl, Lisa A
Description: Student-selected clinical or research experience. Students enrolled in the sport management program cannot use directed readings for any practicum experience.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent;
Instructor: Pettit, Moira Anne
Description: Student-selected clinical or research experience.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent;
Instructor: Barr-Anderson, Daheia Julina
Description: Students work with faculty and graduate students on research or scholarly/creative activities. Students usually assist with faculty scholarship or carry out projects of their own under faculty supervision.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent;
Instructor: Bhalla, Jennifer Anita
Description: Students work with faculty and graduate students on research or scholarly/creative activities. Students usually assist with faculty scholarship or carry out projects of their own under faculty supervision.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent;
Instructor: Weiss, Maureen R
Description: Student-selected clinical or research experience.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq instr consent;
Instructor: Brownlee, Eric A
Description: Student-selected clinical or research experience. Students enrolled in the sport management program cannot use directed readings for any practicum experience.

KIN 3993H Directed Study in Kinesiology: Honors
A-F only, 1-10 credit(s), max credits 10, 10 completions allowed; prereq Kin honors, instr consent;
Instructor: Wiese-Bjornsthal, Ph.D.
Description: Student-selected clinical or research experience.

KIN 4385 Exercise Physiology
A-F only, 4 credit(s); prereq [[3385 or PHSL 3051, or equiv], kin major] or instr consent;
Instructor: Dengel, Donald PhD
Description: Information and learning experiences will be presented that cover specific areas within the discipline of Exercise Physiology. This course is designed for the advanced undergraduate student in Kinesiology, as well as advanced students in such complementary areas as public health, nutrition, physiology, biology, biochemistry, or any sport-related areas. It creates a great opportunity to combine the science of biological, biochemistry, physics, and physiology with the study of health, fitness, wellness, human performance, and sport. Emphasis is placed on basic human physiological systems and the responses of those systems to the challenge of physical activity: from moderate to extreme intensities. The biochemical bases of these responses will be presented. Historical, psychological, sociological, and philosophical implications of these topics will be integrated into many of the lecture/discussions. In addition to lecture information, students will be provided a "hands on" small group laboratory experience that is carefully orchestrated to track lecture material and presentations.

KIN 4641 Training and Conditioning for Sport
A-F only, 3 credit(s); prereq [KIN 4385 or exercise physiology course], [upper level undergrad or M.Ed. or grad student];
Instructor: Ingraham, Stacy Jean
Description: This course prepares the student to systematically design training and conditioning programs for athletes. This course utilizes periodization models with physiological adaptations to maximize human performance in the athletic arena.
Style: 80% Lecture, 20% Discussion.
Grading: 28% final exam, 10% reports/papers, 39% special projects, 16% written homework, 3% in-class presentation, 6% problem solving.

KIN 4697 Student Coaching and Seminar
S-N only, 3 credit(s); prereq [Coaching minor or certificate] student, GPA of at least 2.50;
KIN 4941 Applied Sport Science  
OPT No Aud, 3 credit(s); prereq 4981 or instr consent  
Instructor: Fitzgerald, John S  
Description: Introduction to varied contributions of sport sciences to athletic performance. Evaluation of historical research's contributions toward modern day research questions.

KIN 4981 Understanding Kinesiology Research  
A-F only, 3 credit(s); prereq 4981 or instr consent  
Instructor: Lewis, Beth Ann  
Description: Prepares students to critically analyze research specific to kinesiology.

KIN 5001 Foundations of Human Factors/Ergonomics  
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: HUMF 5001  
Instructor: Smith, Thomas J  
Description: The course will address these issues in the following contexts: Consumer Product Design; Cognitive Performance and Learning, Psychomotor Performance, Behavioral Cybernetics of Human Performance; Effects of Perturbed Sensory Feedback on Performance; Machine and Tool Performance; Interactive Performance with Complex Technological Systems (Human/Computer; Human/Robot); Occupational Performance and Safety; Social and Team Performance; Organizational Performance; and Performance of Complex Sociotechnical Systems (Aerospace, Educational, Manufacturing, Transportation, Community and Health Systems). Field tours of selected private sector operations are provided to complement classroom activities. Course assignments encompass a series of class presentations, reports, and term projects dealing with HF/E analyses of consumer product design, design of complex sociotechnical systems and job/workplace design features and issues. The course represents the core course in the campus-wide, interdisciplinary Human Factors Minor Program, and is intended for graduate and upper-level undergraduate students with an interest in the conceptual and practical aspects of HF/E science.  
Style: 40% Lecture, 10% Discussion. student team presentations & field trips  
Grading: 90% reports/papers, 10% in-class presentation.  
Exam Format: no exams  

KIN 5104 Physical Activities for Persons with Disabilities  
A-F only, 3 credit(s);  
Instructor: Healy, Kathleen Dalton  
Description: Different approaches to providing physical education service and related movement interventions for persons with disabilities. Topics: movement behavior foundations, movement skill progressions, unique considerations for specific impairments, and sport for persons with disabilities.

KIN 5111 Sports Facilities  
A-F only, 3 credit(s); prereq Kin or Rec grad student or MEd student  
Instructor: Turman PhD, James C  
Description: An overview of sports facilities including the planning, development, design, construction, and management of such facilities with emphasis on major indoor multipurpose facilities for recreational sports, physical education, and intercollegiate athletics on the college campus and an introduction to public/private arenas and stadiums. Other topic areas may include funding and financing, operations management, marketing, advertising, public relations, and risk management.  
Style: 35% Lecture, 20% Discussion, 15% Small Group Activities, 15% Student Presentation, 15% Field Trips, 5% Guest Speakers.  
Grading: 17% final exam, 35% reports/papers, 25% special projects, 5% quizzes, 13% written homework, 5% attendance. Note: attendance also includes in-class presentation and participation.  
Exam Format: multiple choice, fill-in, matching, and essay

KIN 5122 Applied Exercise Physiology  
A-F only, 3 credit(s); prereq 4385 or equiv or instr consent  
Instructor: Burns, Kevin Victor  
Description: Mechanisms of cardiorespiratory and muscular responses to exercise; application of exercise physiology to assessment of work capacity, athletic conditioning, and requirements of human powered vehicles; low to moderate exercise as an intervention in lowering risk for common health problems.

KIN 5126 Sport Psychology  
A-F only, 3 credit(s); prereq 3126W or equiv or instr consent  
Instructor: Weiss, Maureen R  
Description: Theory and research in sport psychology. Focus on the psychological study of human behavior in sport and physical activity settings.

KIN 5136 Psychology of Coaching  
3 credit(s);  
Instructor: LaVoi, Nicole Marie  
Description: The course is broken down into two components. The first component focuses on helping coaches (and other sport practitioners) develop skills in creating a climate where optimal development, optimal performance and optimal experience occur simultaneously across all competitive levels. Topics covered in this component include coaching philosophy, leadership, communication skills, motivation, and team building. The second component introduces psychological skills training (PST) and ways in which coaches can implement PST in their programs for performance enhancement. This is an applied course. Kin 3126 is strongly recommended as a pre-requisite. This course is invaluable and highly recommended for students in the coaching minor, and for UG and Graduate students who are currently coaching or intend to coach. Individuals in the Armed Forces also find this course relevant to leadership and aspects of optimal performance. Experienced coaches (i.e., coaches with some or many years of coaching) find the course insightful and transformative. This course is relevant for anyone who manages, motivates, and tries to help individuals attain optimal performance in any context—not just sports.  
Style: 50% Lecture, 5% Film/Video, 15% Discussion, 5% Laboratory, 10% Small Group Activities, 5% Student Presentation, 5% Guest Speakers, 5% Web Based. The course is taught using blended learning and different teaching pedagogies aimed at actively engaging students.  
Grading: 15% final exam, 20% reports/papers, 50% reflection paper, 5% in-class presentation, 10% class participation.  
Exam Format: short answer, case study, essay

KIN 5141 Nutrition for Health and Physical Performance  
A-F only, 3 credit(s); prereq FScH 1112 or equiv  
Instructor: Leon, Arthur S  
Description: Requirements and physiologic roles of nutrients and physical activity in promotion of health and performance; assessment of energy requirements, RDAs, food composition and safety, weight management, and prevention of chronic diseases with emphasis on coronary heart disease. Lectures and slide presentations, take-home project self-assessing one's own usual diet and exercise habits. Target audience: advanced undergraduate and graduate students with science background, preferably with a previous nutrition course, majors and non-majors in Kinesiology.  
Style: 90% Lecture.  
Grading: 40% mid exam, 50% final exam, 10% special projects.  
Exam Format: Multiple choice and short answer

KIN 5152 Curriculum Development in Physical Education  
A-F only, 2 credit(s); prereq initial licensure/MEd phys ed student;  
Instructor: Vogel, Paul Robert  
Description: Trends, issues, and challenges in early childhood/K-12 physical education. Potential impact on the curriculum.

KIN 5196 Practicum: Developmental/Adapted Physical
KIN 5421 Sport Finance
A-F only, 3 credit(s); prereq Grad student or instr consent ;
Instructor: Ross, Stephen D
Description: In recent years, traditional sources of revenue – tax support, media revenues and gate receipts – have declined while costs have escalated. Increased demand for state-of-the-art facilities, coupled with an increase in player and operational costs, have forced sport managers to do more with less. This course is designed to provide students with an introduction to financial analysis, including discussion of traditional and innovative revenue producing strategies available to sport organizations. Along with more conventional income sources such as tax support, municipal and corporate bonds, ticket sales, concessions and fund raising, students will receive in-depth exposure to more recent innovations.

KIN 5461 Foundations of Sport Management
A-F only, 3 credit(s); prereq Kin or rec or postbac or grad student or instr consent ;
Instructor: Esten, Phil L
Description: Theories/techniques in administration/management of sport enterprises. Organizational theory/policy, practical examples of sport management skills/strategies.

KIN 5485 Advanced Electrocardiogram Interpretation
A-F only, 3 credit(s); prereq [3385, 4385] or instr consent ;
Instructor: Nelson, Britteny J
Description: Introduction to electrocardiogram. Placement/interpretation, use in clinical exercise testing and exercise prescription. Hands-on experience in electrocardiogram for exercise testing.

KIN 5505 Human-Centered Design - Principles and Applications
3 credit(s); Credit will not be granted if credit has been received for: KIN 5305;
Instructor: Smith, Thomas J
Description: Human-centered design (also termed user-centered design, usability engineering, human engineering or universal design) is an interdisciplinary area of design study that focuses on how design can be tailored to address, accommodate, and meet human expectations, capabilities, needs, and limitations. The rationale for the course is that: 'good design makes things work better and last longer, helps make people and business more productive, and reduces discomfort and waste.' The basic premise for the course is that 'good' design means human-centered design (HCD). The course will address this premise from a number of different perspectives, considering HCD of fabricated artifacts, human-computer interfaces, built environments, and complex sociotechnical and organizational systems and environments. The course will offer a diverse mix of lecture, open discussion, design analysis projects, guest speakers, field site visits and evaluations, and differing cultural approaches to design.
Style: 40% Lecture, 20% Discussion. student team presentations
Grading: 75% reports/papers, 25% in-class presentation.

KIN 5511 Women in Sport and Leisure
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: REC 5511;
Instructor: Buyse, Jo Ann
Description: The primary purpose of this course is to provide students with an opportunity to critically examine, understand and appreciate women's involvement in-and contributions to-sport and physical activity from both an historical and contemporary perspective. Students will be expected to analyze, critique, and evaluate a wide range of historical, cultural, economic and socio-psychological issues that have shaped the nature and scope of women's participation in sport, physical activity and leisure. Utilizing feminist perspectives, particular attention will be given to the various ways in which females (and their bodies) are often viewed as fundamentally different-physically, socially and psychologically-from their male counterparts. Much of this analysis will take place against the backdrop of highly organized, competitive sports such as intercollegiate athletics. In addition, we will see how it is impossible to separate women's and men's sports from the broader societal roles of women and men in general. Finally, issues that address race/ethnicity, social class and sexual orientation, and how those issues influence women's and men's sports, will also be emphasized throughout the semester. This course will be web enhanced through webctvista.
Style: 50% Lecture, 40% Discussion.
Grading: 25% mid exam, 45% reports/papers, 10% in-class presentation, 20% class participation.
Exam Format: essay

KIN 5563 Programming and Promotion in Sport
A-F only, 3 credit(s); prereq Kin or Rec grad student or instr consent ;
Instructor: Ross, Stephen D
Description: While sport promoters can be traced as far back as early 20th century boxing matches, sport marketing as a concept has just recently been credited with the sudden rise in industrial interest. Although the sport industry is still in it's early growth period, it has experienced extreme financial prosperity. Largely responsible for the increased popularity and revenue gain of the field is sport marketing. This course is designed to introduce marketing concepts as they apply to the sport industry. Topics such as consumer behavior, market research, the marketing mix and licensing will be covered through the use of interactive discussion and practical application.

KIN 5696 Practicum in Kinesiology
S-N only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin MEd or grad student], instr consent ;
Instructor: Buyse, Jo Ann
Description: Practical experience in kinesiology under supervision of a University faculty member and an agency supervisor.

KIN 5696 Practicum in Kinesiology
S-N only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin MEd or grad student], instr consent ;
Instructor: Ingraham, Stacy Jean
Description: Practical experience in Kinesiology under supervision of a University adviser and an agency supervisor.

KIN 5696 Practicum in Kinesiology
S-N only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin MEd or grad student], instr consent ;
Instructor: Allison JD, Rayla
Description: Practical experience in Kinesiology under supervision of a University adviser and an agency supervisor.

KIN 5696 Practicum in Kinesiology
S-N only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin MEd or grad student], instr consent ;
Instructor: Leon, Arthur S
Description: Practical experience in Kinesiology under supervision of a University adviser and an agency supervisor.

KIN 5696 Practicum in Kinesiology
S-N only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin MEd or grad student], instr consent ;
Instructor: Bronas, Ulf Gunnar
Description: Practical experience in kinesiology under supervision of a University faculty member and an agency supervisor.
KIN 5966 Practicum in Kinesiology  
S-N only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin MEd or grad student], instr consent;  
Instructor: Ross, Stephen D  
Description: Practical experience in kinesiology under supervision of a University faculty member and an agency supervisor.

KIN 5966 Practicum in Kinesiology  
S-N only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin MEd or grad student], instr consent;  
Instructor: Kihl, Lisa A  
Description: Practicum offers students opportunities to work in a professional environment under the guidance of professionals. This professional experience should be completed near the completion of your M.Ed. program (completed 15 credits or more) as a culmination of your education and experience. Practicum should be viewed as a transition step between a student’s education and their professional career. Typically the practicum offers a level of responsibility that allows a student to develop professional skills in the field/industry while offering the student training and supervision, which allows them to practically apply previously studied theory. Course information at http://intranet.kin.umn.edu/practicum/

KIN 5723 Psychology of Sport Injury  
3 credit(s); prereq Intro psych course;  
Instructor: Wiese-Bjornstal, PhD, Diane  
Description: This course includes content on the psychosocial bases of the following: risk factors preceding sport injury, responses to the occurrence of sport injury, and the rehabilitation process. Content of the course includes both the theoretical and research foundations of sport injury psychology as well as the practical implications of this knowledge. Structure of the course includes lectures, discussions, guest lecturers, videos, and student presentations. The target audience encompasses both sport psychology graduate students and applied practitioners working with sportsmedicine situations (such as athletic trainers, physical therapists, coaches, and sport psychology consultants). This course will be web enhanced via WebCT.  
Style: 60% Lecture, 20% Discussion. video and other media; student presentations  
Grading: 20% mid exam, 20% final exam, 40% reports/papers, 10% in-class presentation, 10% class participation.  
Exam Format: Mixed method: typically a combination of multiple choice and essay questions

KIN 5801 Legal Aspects of Sport and Recreation  
A-F only, 4 credit(s); prereq Kin or rec major;  
Instructor: Loher, Vickie Lynn  
Description: Legal issues related to recreation, park, and sport programs/facilities with public/private sectors.

KIN 5881 Research Methodology in Kinesiology, Recreation, and Sport  
A-F only, 3 credit(s); prereq 3151 or equiv; Credit will not be granted if credit has been received for: REC 5981;  
Instructor: Kihl, Lisa A  
Description: Defines/reviews various types of research in exercise and sport science, physical education, and recreation studies. Qualitative research, field studies, and introspective research strategies as alternatives to traditional scientific paradigm.

KIN 5992 Readings in Kinesiology  
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], instr consent;  
Instructor: Lewis, Beth Ann  
Description: Independent study under tutorial guidance.

KIN 5992 Readings in Kinesiology  
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], instr consent;  
Instructor: LaVoi, Nicole Marie  
Description: Independent study under tutorial guidance.

KIN 5992 Readings in Kinesiology  
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], instr consent;  
Instructor: Ingraham, Stacy Jean  
Description: Independent study under tutorial guidance.

KIN 5992 Readings in Kinesiology  
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], instr consent;  
Instructor: Allison JD, Rayla  
Description: Independent study under tutorial guidance.

KIN 5992 Readings in Kinesiology  
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], instr consent;  
Instructor: Serfass, Robert C  
Description: Independent study under tutorial guidance.

KIN 5992 Readings in Kinesiology  
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], instr consent;  
Instructor: Leon, Arthur S  
Description: Independent study under tutorial guidance.

KIN 5992 Readings in Kinesiology  
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], instr consent;  
Instructor: Wade, Michael G  
Description: Independent study under tutorial guidance.

KIN 5992 Readings in Kinesiology  
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], instr consent;  
Instructor: Kane, Mary Jo  
Description: Independent study under tutorial guidance.

KIN 5992 Readings in Kinesiology  
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], instr consent;  
Instructor: Smith, Thomas J  
Description: Directed study of selected readings in kinesiology with an emphasis on the areas of human factors/ergonomics and motor performance and behavior.  
Style: 100% Discussion.  
Grading: 100% special projects.  
Exam Format: no exams

KIN 5992 Readings in Kinesiology  
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], instr consent;  
Instructor: Wiese-Bjornstal, PhD, Diane  
Description: Independent study under tutorial guidance.

KIN 5992 Readings in Kinesiology  
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], instr consent;  
Instructor: Allison JD, Rayla  
Description: Independent study under tutorial guidance.
KIN 5995 Research Problems in Applied Kinesiology
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instructor consent;
Instructor: Buyse, Jo Ann
Description: Selected topics in physical activity/human performance.

KIN 5995 Research Problems in Applied Kinesiology
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instructor consent;
Instructor: Lewis, Beth Ann
Description: Selected topics in physical activity/human performance.

KIN 5995 Research Problems in Applied Kinesiology
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instructor consent;
Instructor: LaVoi, Nicole Marie
Description: Selected topics in physical activity/human performance.

KIN 5995 Research Problems in Applied Kinesiology
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instructor consent;
Instructor: Ingraham, Stacy Jean
Description: Selected topics in physical activity/human performance.

KIN 5995 Research Problems in Applied Kinesiology
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instructor consent;
Instructor: Allison JD, Rayla
Description: Selected topics in physical activity/human performance.

KIN 5995 Research Problems in Applied Kinesiology
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instructor consent;
Instructor: Serfass, Robert C
Description: Research problems and readings on a selected topic in Kinesiology.

KIN 5995 Research Problems in Applied Kinesiology
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instructor consent;
Instructor: Serfass, Robert C
Description: Research problems and readings on a selected topic in Kinesiology.

KIN 5995 Research Problems in Applied Kinesiology
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instructor consent;
Instructor: Kane, Mary Jo
Description: Research problems and readings on a selected topic in Kinesiology.

KIN 5995 Research Problems in Applied Kinesiology
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prerequisite [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instructor consent;
Instructor: Kane, Mary Jo
Description: Research problems and readings on a selected topic in Kinesiology.
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<th>Course Title</th>
<th>Description</th>
<th>Instructor</th>
<th>Consent</th>
<th>Prerequisite</th>
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<td>Research problems and readings on a selected topic in Kinesiology.</td>
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<td>Research problems and readings on a selected topic in Kinesiology.</td>
<td>Wiese-Bjornstal, PhD, Diane</td>
<td>True</td>
<td>Kin upper div undergrad or MEd or grad student</td>
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<td>Kin upper div undergrad or MEd or grad student</td>
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<td>Research problems and readings on a selected topic in Kinesiology.</td>
<td>Dengel, PhD, Donald Robert</td>
<td>True</td>
<td>Kin upper div undergrad or MEd or grad student</td>
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<td>No exam</td>
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<tr>
<td>KIN 5995</td>
<td>Research Problems in Applied Kinesiology A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instr consent</td>
<td>Research problems and readings on a selected topic in Kinesiology.</td>
<td>Stoffregen, Thomas</td>
<td>True</td>
<td>Kin upper div undergrad or MEd or grad student</td>
<td>6</td>
<td>6</td>
<td>True</td>
<td>None</td>
<td>No exam</td>
</tr>
<tr>
<td>KIN 5995</td>
<td>Research Problems in Applied Kinesiology A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instr consent</td>
<td>Research problems and readings on a selected topic in Kinesiology.</td>
<td>Ross, Stephen D</td>
<td>True</td>
<td>Kin upper div undergrad or MEd or grad student</td>
<td>6</td>
<td>6</td>
<td>True</td>
<td>None</td>
<td>No exam</td>
</tr>
<tr>
<td>KIN 5995</td>
<td>Research Problems in Applied Kinesiology A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instr consent</td>
<td>Research problems and readings on a selected topic in Kinesiology.</td>
<td>Kihl, Lisa A</td>
<td>True</td>
<td>Kin upper div undergrad or MEd or grad student</td>
<td>6</td>
<td>6</td>
<td>True</td>
<td>None</td>
<td>No exam</td>
</tr>
</tbody>
</table>

KIN 5995. You should produce a final product that is useful to your professional practice. For additional information please click on this link: http://cehd.umn.edu/kin/students/docs/M.Ed%20Problems%20Proposal.pdf. It is recommended that students complete KIN/REC 5981 Research methodology in Kinesiology, Recreation, and Sport prior to enrolling in KIN 5995.

KIN 5995 Research Problems in Applied Kinesiology A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instr consent | Research problems and readings on a selected topic in Kinesiology. | Petit, Moira Anne | True    | Kin upper div undergrad or MEd or grad student   | 6            | 6          | True                | None  | No exam     |

KIN 5995. You should produce a final product that is useful to your professional practice. For additional information please click on this link: http://cehd.umn.edu/kin/students/docs/M.Ed%20Problems%20Proposal.pdf. It is recommended that students complete KIN/REC 5981 Research methodology in Kinesiology, Recreation, and Sport prior to enrolling in KIN 5995.

KIN 5995 Research Problems in Applied Kinesiology A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instr consent | Research problems and readings on a selected topic in Kinesiology. | Barr-Anderson, Daheia Julina | True    | Kin upper div undergrad or MEd or grad student   | 6            | 6          | True                | None  | No exam     |

KIN 5995 Research Problems in Applied Kinesiology A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instr consent | Research problems and readings on a selected topic in Kinesiology. | Weiss, Maureen R | True    | Kin upper div undergrad or MEd or grad student   | 6            | 6          | True                | None  | No exam     |

KIN 5995 Research Problems in Applied Kinesiology A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instr consent | Research problems and readings on a selected topic in Kinesiology. | Brownlee, Eric A | True    | Kin upper div undergrad or MEd or grad student   | 6            | 6          | True                | None  | No exam     |

KIN 5995 Research Problems in Applied Kinesiology A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq [Kin upper div undergrad or MEd or grad student], 15 cr of major coursework [including 4981 or 5981], instr consent | Research problems and readings on a selected topic in Kinesiology. | Wade, Michael G | True    | Kin upper div undergrad or MEd or grad student   | 6            | 6          | True                | None  | No exam     |

KIN 8135 Seminar: Motor Control and Learning A-F only, 3 credit(s), max credits 6; prereq 4135 or equiv or instr consent | Advanced reading and discussion of research on motor control, motor learning, and human performance. | Wade, Michael G | True    | None     | 6            | 6          | True                | None  | No exam     |

KIN 8696 Internship: Applied Sport Psychology S-N only, 3-6 credit(s), max credits 6; prereq 5126, 8126, Kin PhD student, instr consent | Supervised internship; emphasis on educational sport psychology approaches to athletic performance enhancement and psychological adjustment to sport injury. | Wiese-Bjornstal, PhD, Diane | True    | None     | 6            | 6          | True                | None  | No exam     |

KIN 8980 Graduate Research Seminar in Kinesiology S-N only, 1 credit(s), max credits 9, 9 completions allowed; prereq Grad Kin major, instr consent | Reporting and discussion of student and faculty research activity. | Serfass, Robert C | True    | None     | 9            | 9          | True                | None  | No exam     |
KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: Lewis, Beth Ann
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: LaVois, Nicole Marie
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: Ingraham, Stacy Jean
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: Dengel, Donald Robert
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: LaVois, Nicole Marie
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: Ingraham, Stacy Jean
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: Serfass, Robert C
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: Leon, Arthur S
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: Kane, Mary Jo
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: Wade, Michael G
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: Wiese-Bjornstal, PhD, Diane
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: Konczak, PhD, Juergen
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: Dengel, Donald Robert
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: Stoffregen, Thomas
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: Ross, Stephen D
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 completions allowed; 
prereq Kin PhD student, instr consent ; 
Instructor: Weiss, Maureen R
Description: Research Problems in Kinesiology

KOR 1011 Beginning Korean
5 credit(s); Credit will not be granted if credit has been received for: KOR 4001; 
Instructor: Cho, Hangtae
Description: This course is the first of a two-semester sequence of Beginning Korean; it is designed for true beginners or non-heritage learners who have no or little background knowledge of Korean. It aims to begin developing the four communication skills (speaking, listening, reading and writing) in Korean. It covers the basic grammatical structures and vocabulary necessary for basic conversation, reading comprehension, and writing to have the students build a solid foundation for further study in the Korean language. The course also provides useful information concerning culture (where culture touches on language and communication) and everyday life in Korea. After completing this course, a student should be able 1) to maintain simple face-to-face conversation by asking and answering simple questions in Korean, 2) to comprehend the learned materials, 3) to write simple sentences and expressions, and 4) to comprehend simple texts with limited vocabulary.

KOR 1011 Beginning Korean
5 credit(s); Credit will not be granted if credit has been received for: KOR 4001; 
Instructor: Yoon, Sang-Seok
Description: Student may contact the instructor or department for information.

KOR 1011 Beginning Korean
5 credit(s); Credit will not be granted if credit has been received for: KOR 4001; 
Instructor: Ahn, Sejung
Description: This course is the first of a two-semester sequence of Beginning Korean; it is designed for true beginners or non-heritage learners who have no or little background knowledge of Korean. It aims to begin developing the four communication skills (speaking, listening, reading and writing) in Korean. It covers the basic grammatical structures and vocabulary necessary for basic conversation, reading comprehension, and writing to have the students build a solid foundation for further study in the Korean language. The course also provides useful information concerning culture (where culture touches on language and communication) and everyday life in Korea. After completing this course, a student should be able 1) to maintain simple face-to-face conversation by asking and answering simple questions in Korean, 2) to comprehend the learned materials, 3) to write simple sentences and expressions, and 4) to comprehend simple texts with limited vocabulary.
vocabulary.

KOR 3021 Intermediate Korean
5 credit(s); prereq 1012; Credit will not be granted if credit has been received for: KOR 4003;
Instructor: Yoon,Sang-Seok
Description: Student may contact the instructor or department for information.

KOR 3290 Korean Language Teaching Tutorial
S-N only, 1 credit(s), max credits 2; prereq Grade of A in 3022;
Instructor: Cho,Hangtae
Description: Student may contact the instructor or department for information.

KOR 3993 Directed Studies
1-3 credit(s), max credits 12, 4 completions allowed; prereq instr consent , dept consent , college consent ;
Instructor: Cho,Hangtae
Description: Student may contact the instructor or department for information.

KOR 4001 Beginning Korean
3 credit(s); prereq Grad student; Credit will not be granted if credit has been received for: KOR 1011;
Instructor: Cho,Hangtae
Description: This course is the first of a two-semester sequence of Beginning Korean; it is designed for true beginners or non-heritage learners who have no or little background knowledge of Korean. It aims to begin developing the four communication skills (speaking, listening, reading and writing) in Korean. It covers the basic grammatical structures and vocabulary necessary for basic conversation, reading comprehension, and writing to have the students build a solid foundation for further study in the Korean language. The course also provides useful information concerning culture (where culture touches on language and communication) and everyday life in Korea. After completing this course, a student should be able 1) to maintain simple face-to-face conversation by asking and answering simple questions in Korean, 2) to comprehend the learned materials, 3) to write simple sentences and expressions, and 4) to comprehend simple texts with limited vocabulary.

KOR 4001 Beginning Korean
3 credit(s); prereq Grad student; Credit will not be granted if credit has been received for: KOR 1011;
Instructor: Yoon,Sang-Seok
Description: This course is the first of a two-semester sequence of Beginning Korean; it is designed for true beginners or non-heritage learners who have no or little background knowledge of Korean. It aims to begin developing the four communication skills (speaking, listening, reading and writing) in Korean. It covers the basic grammatical structures and vocabulary necessary for basic conversation, reading comprehension, and writing to have the students build a solid foundation for further study in the Korean language. The course also provides useful information concerning culture (where culture touches on language and communication) and everyday life in Korea. After completing this course, a student should be able 1) to maintain simple face-to-face conversation by asking and answering simple questions in Korean, 2) to comprehend the learned materials, 3) to write simple sentences and expressions, and 4) to comprehend simple texts with limited vocabulary.

KOR 4003 Intermediate Korean
3 credit(s); prereq 4002, grad student; Credit will not be granted if credit has been received for: KOR 3021;
Instructor: Yoon,Sang-Seok
Description: Student may contact the instructor or department for information.

KOR 4041 Advanced Readings in Modern Korean
4 credit(s); prereq 3032 or equiv or instr consent ;
Instructor: Yoon,Sang-Seok
Description: Student may contact the instructor or department for information.

KOR 5140 Readings in Sino-Korean Texts
3 credit(s), max credits 9, 3 completions allowed; prereq 3032 or equiv or instr consent ;
Instructor: Cho,Hangtae
Description: This course is designed to increase the students’ proficiency to advanced-high level in all aspects of modern Korean with a special emphasis on Sino Korean; Sino-Korean vocabulary and characters are necessary for advanced and superior level of knowledge in Korean. Sino-Korean characters are used differently from the same Chinese characters used in contemporary China in terms of pronunciation, meaning, and word formation. This course aims to prepare students for research or employment in a variety of Korea-related fields. Text materials are drawn from authentic sources including modern Korean literature, film, intellectual history, and readings on contemporary issues. Radio and TV broadcasts will also be included in the teaching materials. Texts will be selected, in part, according to student interests. With the instructor’s guidance, students will conduct research projects based on specialized readings in their own fields of study. The research projects will be presented both orally and in written form at the end of the semester. This course will be mostly taught in Korean. 3 repeats are allowed.

Landscape Architecture
144 Rapson Hall

LA 1201 Learning from the Landscape
A-F only, 3 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Diversity and Soc Justice US;
Instructor: Nunally,Patrick
Description: This course is designed to give students an understanding of why the landscape around us looks the way it does. What do our cities, parks, farms, and small towns say about who we are and what we think is important? How do people make homes for themselves, establish public spaces, and understand the meanings of places in the American landscape? What contributions have various racial, ethnic, and class-based groups made to the contemporary American landscape? Lectures are heavily illustrated, and there are two field exercises that invite students to explore the nearby landscape. Course meets the CLE Cultural Diversity requirement.
Style: 80% Lecture, 20% Discussion.
Grading: 2 midterms, 2 exercises, final exam (all 20%), several small homework assignments are also required.
Exam Format: Short answer

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
LA 1301 Introduction to Landscape Architecture Drawing
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: LA 5301; Meets CLE req of Arts/Humanities.
Instructor: Agee, Bradley Steele
Description: Classroom and homework projects will focus on exploring landscape space and organization through the completion of assigned exercises and work in your sketch journal. Progress will be evaluated and guidance offered during classroom critique. You will be expected to work in class, so be sure that you bring your materials to class unless notified otherwise. The class will consist of classroom drawing exercises, lectures, demonstrations, and reviews of students work. Weekly assignments will typically be given on Monday to be completed Wednesday depending upon the nature of the assignment.
Grading: 60% special projects, 20% laboratory evaluation, 20% other evaluation. Sketch journal

LA 1301 Introduction to Landscape Architecture Drawing
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: LA 5301; Meets CLE req of Arts/Humanities.
Instructor: Abbott, Dean Frederick
Description: Student may contact the instructor or department for information.

LA 2301 Advanced Representation for Environmental Design
3 credit(s); prerequisite 1301;
Instructor: Kocian, Matthew Bernard
Description: Student may contact the instructor or department for information.

LA 3001 Understanding and Creating Landscape Space
A-F only, 3 credit(s); prerequisite B.E.D major or pre-LA student or instr consent;
Instructor: Agee, Bradley Steele
Description: Introduction to spatial design issues at all scales.

LA 3003 Case Studies in Sustainable Landscape Planning and Design
3 credit(s);
Instructor: Raab, Kristin Kelly
Description: Sustainable landscape design/planning practices. Integrative potential between practices/changes in global biodiversity, quality of air/water resources, development/consumption of resources, and climate. Selection, deployment, and management of sustainable design.

LA 4096 Internship in Landscape Design and Planning
S-N only, 1 credit(s); prerequisite 1301, 2301, 2302, 3001, 3002, 3003;
Instructor: Pitt, David George
Description: Supervised professional experience in environmental design firms or government agencies. Students perform professional services and relate these experiences to their education in environmental design.

LA 4755 Infrastructure, Natural Systems, and Space of Inhabited Landscapes
A-F only, 3 credit(s); prerequisite credit already received for: LA 4712 or 5712 Jr or Sr or Jr or Sr; Credit will not be granted if credit has been received for: LA 5755; Meets CLE req of Technology and Society.
Instructor: Lehman, Barry
Description: With over half of the world's population now living in cities, the practices of integrated urbanism to create eco-cities is a promising solution to mitigate climate change and our ecological impact. INFRASTRUCTURE, NATURAL SYSTEMS, AND THE SPACE OF INHABITED LANDSCAPES is an upper level seminar exploring cross-disciplinary solutions to mitigate and reverse the adverse anthropogenic impacts on our planet through deploying technological solutions to the design of green infrastructural systems that integrate regenerative ecosystem services into our settlements. LA 4755/5755 explores the systems, metrics, policies, methodology, and practices to create sustainable cities and to integrate natural systems into the built environment. INFRASTRUCTURE covered includes: transportation/logistics systems; water purification, storage and distribution; energy generation and transmission; waste reuse/recycling/disposal; communication and environmental sensors/feedback and more. NATURAL SYSTEMS covered includes: integrating vegetation into the built environment, urban agriculture, treatment wetlands, wildlife habitat and more. Infrastructural systems are typically engineered to optimize a single function and to exclude cultural uses and public access. As big industrial infrastructural systems get integrated into the urban realm, they must be altered to accommodate a wide range of uses in THE SPACE OF INHABITED LANDSCAPES. As a CLE Technology and Society course, LA 4755 will help students understand: - How infrastructural technology shapes our cities and society; - The role of policy and regulations in shaping infrastructural technology and urban form; - The basic science of climate change and adverse environmental impact of humans; - Ethical implications of climate change and growing human population; - Basic engineering principals and practices behind energy generation and transmission, transportation, water purification and distribution, food production and distribution, waste disposal and re-use, and alternate systems to these infrastructures; - Multiple perspectives on the role of citizens and users versus the utilities and state in developing green infrastructure technologies, and the process for deploying new systems; - How to evaluate conflicting views about infrastructural technologies; - How to evaluate existing power, water, food, and transit technology as well as develop a new framework to evaluate emerging technologies. The weekly lectures will have a mix of guest speakers, group discussions, workshops, film/videos, and a field trip. The recitation sessions will focus on discussing the assigned readings and assignment. LA 5755 is open to graduate students from throughout the university. Graduate students are required to teach one recitation session, and complete additional course work. This course is paperless.
Grading: Style: 50% Lecture, 5% Film/Video, 25% Discussion, 5% Student Presentation, 5% Field Trips, 10% Guest Speakers.
Grading: 70% reports/papers, 10% in-class presentation, 20% class participation. Environmental Footprinting assignment 10% Policy Statement 10% Career Path Assignment 10% Final project 50% Extra credit opportunities are available.

LA 5201 Making Landscape Spaces and Types
A-F only, 6 credit(s); prerequisite B.E.D. accelerated status or LA grad or instr consent;
Instructor: Kranke, Rebecca Jean
Description: Student may contact the instructor or department for information.

LA 5202 Landscape Analysis Workshop
S-N only, 1 credit(s);
Instructor: Koepe, John Albert
Description: Student may contact the instructor or department for information.

LA 5301 Introduction to Landscape Architecture Drawing
3 credit(s); prerequisite LA grad student or accelerated B.E.D. student; Credit will not be granted if credit has been received for: LA 1301;
Instructor: Koepe, John Albert
Description: Student may contact the instructor or department for information.

LA 5371 Computer Methods I
S-N only, 1 credit(s); prerequisite B.E.D. accelerated status or LA grad or instr consent; Credit will not be granted if credit has been received for: ARCH 5371;
Instructor: Kocian, Matthew Bernard
Description: Student may contact the instructor or department for information.

LA 5374 Representation for Landscape Architectural Construction
3 credit(s);
Instructor: de Britto, Vincent P
LA 5401 Directed Studies in Emerging Areas of Landscape Architecture
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Martin, Roger B
Description: Student may contact the instructor or department for information.

LA 5401 Directed Studies in Emerging Areas of Landscape Architecture
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Koepke, John Albert
Description: Student may contact the instructor or department for information.

LA 5401 Directed Studies in Emerging Areas of Landscape Architecture
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Pitt, David George
Description: Student may contact the instructor or department for information.

LA 5401 Directed Studies in Emerging Areas of Landscape Architecture
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Neckar, Lance M
Description: Student may contact the instructor or department for information.

LA 5401 Directed Studies in Emerging Areas of Landscape Architecture
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Hewitt, Clinton N
Description: Student may contact the instructor or department for information.

LA 5401 Directed Studies in Emerging Areas of Landscape Architecture
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Sykes, Robert D
Description: Student may contact the instructor or department for information.

LA 5401 Directed Studies in Emerging Areas of Landscape Architecture
1-3 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Miller, Kristine Frances
Description: Student may contact the instructor or department for information.

LA 5402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Musacchio, Laura R
Description: Student may contact the instructor or department for information.

LA 5402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Koepke, Rebecca Jean
Description: Student may contact the instructor or department for information.

LA 5402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Koepke, John Albert
Description: Student may contact the instructor or department for information.

LA 5402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Pitt, David George
Description: Student may contact the instructor or department for information.

LA 5402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Pitt, David George
Description: Student may contact the instructor or department for information.

LA 5402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Hewitt, Clinton N
Description: Student may contact the instructor or department for information.

LA 5402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Sykes, Robert D
Description: Student may contact the instructor or department for information.

LA 5402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Miller, Kristine Frances
Description: Student may contact the instructor or department for information.

LA 5402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent; 
Instructor: Koepke, John Albert
Description: Student may contact the instructor or department for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
### LA 5403 Directed Studies in Landscape Architecture Technology

1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Galatowitsch, Susan M
Description: Student may contact the instructor or department for information.

### LA 5404 Directed Studies in Landscape Architecture Design

1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Pitt, David George
Description: Student may contact the instructor or department for information.

### LA 5405 Interdisciplinary Studies in Landscape Architecture

A-F only, 1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Martin, Roger B
Description: Research, planning, and/or design project. Topics may include energy efficient design, ecological dimension of design, historic preservation, downtown revitalization, agricultural land use, computerized land use planning, transportation and infrastructure housing.

### LA 5406 Interdisciplinary Studies in Landscape Architecture

A-F only, 1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Koepke, John Albert
Description: Research, planning, and/or design project. Topics may include energy efficient design, ecological dimensions of design, historic preservation, downtown revitalization, agricultural land use, computerized land use planning, transportation, and infrastructure housing.

### LA 5407 Interdisciplinary Studies in Landscape Architecture

A-F only, 1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Galatowitsch, Susan M
Description: Student may contact the instructor or department for information.

### LA 5408 Interdisciplinary Studies in Landscape Architecture

A-F only, 1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Galatowitsch, Susan M
Description: Research, planning, and/or design projects. Topics vary.

### LA 5409 Interdisciplinary Studies in Landscape Architecture

A-F only, 1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Sykes, Robert D
Description: Student may contact the instructor or department for information.

### LA 5410 Directed Studies in Landscape Architecture

1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Koepke, John Albert
Description: Research, planning, and/or design project. Topics may include energy efficient design, ecological dimensions of design, historic preservation, downtown revitalization, agricultural land use, computerized land use planning, transportation, and infrastructure housing.

### LA 5411 Directed Studies in Landscape Architecture

1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Galatowitsch, Susan M
Description: Student may contact the instructor or department for information.

### LA 5412 Interdisciplinary Studies in Landscape Architecture

A-F only, 1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Krinke, Rebecca Jean
Description: Research, planning, and/or design projects. Topics vary.

### LA 5413 Directed Studies in Landscape Architecture

1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Hewitt, Clinton N
Description: Student may contact the instructor or department for information.

### LA 5414 Directed Studies in Landscape Architecture

1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Neckar, Lance M
Description: Student may contact the instructor or department for information.

### LA 5415 Directed Studies in Landscape Architecture

1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Sykes, Robert D
Description: Student may contact the instructor or department for information.

### LA 5416 Directed Studies in Landscape Architecture

1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Miller, Kristine Frances
Description: Student may contact the instructor or department for information.

### LA 5417 Directed Studies in Landscape Architecture

1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Musacchio, Laura R
Description: Student may contact the instructor or department for information.

### LA 5418 Directed Studies in Landscape Architecture

1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Koepke, John Albert
Description: Research, planning, and/or design project. Topics may include energy efficient design, ecological dimensions of design, historic preservation, downtown revitalization, agricultural land use, computerized land use planning, transportation, and infrastructure housing.

### LA 5419 Directed Studies in Landscape Architecture

1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Galatowitsch, Susan M
Description: Student may contact the instructor or department for information.

### LA 5420 Directed Studies in Landscape Architecture

1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Krinke, Rebecca Jean
Description: Research, planning, and/or design projects. Topics vary.

### LA 5421 Directed Studies in Landscape Architecture

1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Galatowitsch, Susan M
Description: Research, planning, and/or design projects. Topics vary.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
<th>Credit(s)</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA 5405</td>
<td>Interdisciplinary Studies in Landscape Architecture</td>
<td>Favour, Joseph Richard</td>
<td>A-F only</td>
<td>1-6 credit(s), max credits 12, 12 completions allowed; prerequisite instr consent</td>
<td>Theory and professional applications of landform systems for design. Topics include typology, representation methods, manipulation techniques, use of land survey data, earthwork construction issues, and spatial accommodation of vehicles in landscape architecture, including road design.</td>
</tr>
<tr>
<td>LA 5571</td>
<td>Landscape Construction: Landform Systems and Spatial Performance</td>
<td>Galatowitsch, Susan M</td>
<td>A-F only</td>
<td>3 credit(s); prerequisite BED student or LA grad student;</td>
<td>Theory and professional applications of landform systems for design. Topics include typology, representation methods, manipulation techniques, use of land survey data, earthwork construction issues, and spatial accommodation of vehicles in landscape architecture, including road design.</td>
</tr>
<tr>
<td>LA 5572</td>
<td>Plants in Design</td>
<td>Koepke, John Albert</td>
<td>A-F only</td>
<td>3 credit(s); prerequisite [5201, 5203, plant identification course] or instr consent</td>
<td>Theory and professional applications of landform systems for design. Topics include typology, representation methods, manipulation techniques, use of land survey data, earthwork construction issues, and spatial accommodation of vehicles in landscape architecture, including road design.</td>
</tr>
<tr>
<td>LA 5574</td>
<td>Identification of Minnesota Flora</td>
<td>Krinke, Rebecca Jean</td>
<td>A-F only</td>
<td>3 credit(s); prerequisite BED accelerated status or LA grad student or instr consent</td>
<td>Theory and professional applications of landform systems for design. Topics include typology, representation methods, manipulation techniques, use of land survey data, earthwork construction issues, and spatial accommodation of vehicles in landscape architecture, including road design.</td>
</tr>
<tr>
<td>LA 5755</td>
<td>Infrastructure, Natural Systems and the Space of Inhabited Landscapes</td>
<td>Pitt, David George</td>
<td>A-F only</td>
<td>3 credit(s); prerequisite Grad student credit will not be granted if credit already received for: LA 4712, LA 5712; Credit will not be granted if credit has been received for: LA 4755;</td>
<td>Theory and professional applications of landform systems for design. Topics include typology, representation methods, manipulation techniques, use of land survey data, earthwork construction issues, and spatial accommodation of vehicles in landscape architecture, including road design.</td>
</tr>
</tbody>
</table>

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LA 8401 Directed Studies in Emerging Areas of Landscape Architecture
1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Miller,Kristine Frances
Description: Student may contact the instructor or department for information.

LA 8401 Directed Studies in Emerging Areas of Landscape Architecture
1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: Koepke,John Albert
Description: Student may contact the instructor or department for information.

LA 8402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Krinke,Rebecca Jean
Description: Student may contact the instructor or department for information.

LA 8402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Galatowitsch,Susan M
Description: Student may contact the instructor or department for information.

LA 8402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Pitt,David George
Description: Student may contact the instructor or department for information.

LA 8402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Neckar,Lance M
Description: Student may contact the instructor or department for information.

LA 8402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Sykes,Robert D
Description: Student may contact the instructor or department for information.

LA 8402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Musacchio,Laura R
Description: Student may contact the instructor or department for information.

LA 8402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Sykes,Robert D
Description: Student may contact the instructor or department for information.

LA 8402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Miller,Kristine Frances
Description: Student may contact the instructor or department for information.

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Description: Student may contact the instructor or department for information.

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Description: Student may contact the instructor or department for information.

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1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Sykes,Robert D
Description: Student may contact the instructor or department for information.

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1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Sykes,Robert D
Description: Student may contact the instructor or department for information.
Technology
1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Pitt, David George
Description: Student may contact the instructor or department for information.

LA 8403 Directed Studies in Landscape Architecture Technology
1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Neckar, Lance M
Description: Student may contact the instructor or department for information.

LA 8403 Directed Studies in Landscape Architecture Technology
1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Krinke, Rebecca Jean
Description: Student may contact the instructor or department for information.

LA 8403 Directed Studies in Landscape Architecture Technology
1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Martin, Roger B
Description: Student may contact the instructor or department for information.

LA 8403 Directed Studies in Landscape Architecture Technology
1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Musacchio, Laura R
Description: Student may contact the instructor or department for information.

LA 8404 Directed Studies in Landscape Architecture Design
1-6 credit(s), max credits 6, 1 completion allowed; prereq Grad LA major or instr consent;
Instructor: Koepke, John Albert
Description: Student may contact the instructor or department for information.

LA 8404 Directed Studies in Landscape Architecture Design
1-6 credit(s), max credits 6, 1 completion allowed; prereq Grad LA major or instr consent;
Instructor: Galatowitsch, Susan M
Description: Student may contact the instructor or department for information.

LA 8404 Directed Studies in Landscape Architecture Design
1-6 credit(s), max credits 6, 1 completion allowed; prereq Grad LA major or instr consent;
Instructor: Pitt, David George
Description: Student may contact the instructor or department for information.

LA 8404 Directed Studies in Landscape Architecture Design
1-6 credit(s), max credits 6, 1 completion allowed; prereq Grad LA major or instr consent;
Instructor: Sykes, Robert D
Description: Student may contact the instructor or department for information.

LA 8404 Directed Studies in Landscape Architecture Design
1-6 credit(s), max credits 6, 1 completion allowed; prereq Grad LA major or instr consent;
Instructor: Miller, Kristine Frances
Description: Student may contact the instructor or department for information.

LA 8405 Interdisciplinary Studies in Landscape Architecture A-F only, 1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Koepke, John Albert
Description: Student may contact the instructor or department for information.

LA 8405 Interdisciplinary Studies in Landscape Architecture A-F only, 1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Galatowitsch, Susan M
Description: Student may contact the instructor or department for information.

LA 8405 Interdisciplinary Studies in Landscape Architecture A-F only, 1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Pitt, David George
Description: Student may contact the instructor or department for information.

LA 8405 Interdisciplinary Studies in Landscape Architecture A-F only, 1-6 credit(s), max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Neckar, Lance M
Description: Student may contact the instructor or department for information.

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LA 4805 Interdisciplinary Studies in Landscape Architecture
A-F only, 1-6 credits, max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Hewitt, Clinton N
Description: Student may contact the instructor or department for information.

LA 4805 Interdisciplinary Studies in Landscape Architecture
A-F only, 1-6 credits, max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Sykes, Robert D
Description: Student may contact the instructor or department for information.

LA 4805 Interdisciplinary Studies in Landscape Architecture
A-F only, 1-6 credits, max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Miller, Kristine Frances
Description: Student may contact the instructor or department for information.

LA 4805 Interdisciplinary Studies in Landscape Architecture
A-F only, 1-6 credits, max credits 12, 12 completions allowed; prereq Grad LA major or instr consent;
Instructor: Musacchio, Laura R
Description: Student may contact the instructor or department for information.

LA 8554 Project Programming
A-F only, 1 credit(s), max credits 3, 1 completion allowed; prereq 8203, grad land arch major or instr consent;
Instructor: de Britto, Vincent P
Description: Student may contact the instructor or department for information.

LA 8574 Landscape Storm Water Management
3 credit(s); prereq 8201, grad land arch major or instr consent;
Instructor: Weduli, Andrea M
Description: Student may contact the instructor or department for information.

Instructor: STAFF
Description: An introduction to reading unadapted Latin prose from classical authors such as Caesar, Cicero and Pliny. The course includes some grammar review but also considers literary issues (e.g. conventions of public speaking, Roman letters as a genre) and situates the works we study in their historical context.
Exam Format: Translation/comment

LAT 5003 Intermediate Latin Prose: Graduate Student
Enrollment 3 credit(s); prereq [Grade of at least [C- or S] in [1002 or 5001] or instr consent ]; grad student credit will not be granted if credit already received for: 3113, 8120; Credit will not be granted if credit has been received for: LAT 3003;
Instructor: Smith, Stephen
Description: Student may contact the instructor or department for information.

LAT 5100 Advanced Reading: Catullus
3 credit(s), max credits 18, 6 completions allowed; prereq [[3004 or equiv], at least two yrs of college level Latin] or instr consent ;
Instructor: Nappa, Christopher
Description: Although relatively little remains of his works, Catullus is one of the most widely read Roman poets. His works consist of poems of a variety of types (lyric, elegy, epigram, miniature epic) on a variety of topics (love, hatred, politics, and art, to name the most prominent). Poems of great tenderness are intermingled with vicious (and extremely funny) personal attacks on enemies real and imagined. Catullus is the first Roman author to grapple with defining romantic love in something like the way we do, and he had to create a new vocabulary of the emotions to do so. We'll read as much as we can of the poetry of Catullus in Latin, along with occasional readings from other authors and representative works of secondary literature.
Style: 50% Lecture, 50% Discussion.

LAT 5200 Advanced Reading in Later Latin: Anselm and His Life
3 credit(s), max credits 18, 6 completions allowed; prereq 3004 or equiv or instr consent or CNES grad student;
Instructor: Nicholson, Oliver
Description: Human motives are seldom pure and never simple. Anselm of Bec (1033 - 1109) was a monk and philosopher catapulted into high office as Archbishop of Canterbury at a time when, under the Norman kings, English politics were unusually rough. Many of his letters survive, as do his prayers and his theological treatises (Anselm was the discoverer of the ontological argument for the existence of God, later elaborated by Immanuel Kant). We will consider all these sources, but will concentrate on understanding the intimate biography written in attractive Latin by the chronicler Eadmer, a close associate of Anselm. This brings the 11th century close in all its complexity, providing contemporary evidence for Anselm's political entanglements, his monastic frame of mind and his philosophical inspiration. Everyone will write a brief paper, but the main emphasis will be on reading and understanding the text, so there will be examinations covering both translation and context questions.

LAT 5701 Latin Prose Composition
3 credit(s); prereq Grad student or instr consent credit will not be granted if credit already received for Lat 5012;
Instructor: Sheets, George A
Description: This a course in Latin Prose composition. The course aims to improve students' comprehension of and proficiency in using: (1) Latin morphology & syntax; (2) Latin vocabulary & idioms; (3) Latin discourse markers (particles, word order); and (4) elements of Latin prose style (colae, figures, concinnity and its absence).
Style: 25% Lecture, 25% Discussion. critiquing daily composition exercises
Grading: 100% other evaluation. Cumulative average of graded daily compositions
Exam Format: no exams

Latin
245 Nicholson Hall

LAT 1001 Beginning Latin I
5 credit(s); Credit will not be granted if credit has been received for: LAT 5001;
Instructor: STAFF
Description: Latin, the language of the ancient Romans, has served as a means of communication for well over two thousand years. It is not only the chief language of one of the world's major civilizations, but also an international language for centuries after Rome's fall, the ancestor of the Romance languages, and an important influence on English. The aim of Beginning Latin is to prepare you to read unadapted Latin texts by providing a solid grounding in grammar and vocabulary along with oral and written practice. With this foundation you will be able to read a wide range of ancient, medieval, and Renaissance authors. In addition, Latin 1001 will help strengthen your grasp of English grammar and vocabulary. There is no prerequisite for this course.
Style: 50% Lecture, 50% Discussion. recitation
Exam Format: translation, grammar

LAT 3003 Intermediate Latin Prose
4 credit(s); prereq Grade of at least [C- or S] in [1002 or 5001] or instr consent credit will not be granted if credit already received for: Lat 3113; Credit will not be granted if credit has been received for: LAT 5003;
Instructor: STAFF
Description: An introduction to reading unadapted Latin prose from classical authors such as Caesar, Cicero and Pliny. The course includes some grammar review but also considers literary issues (e.g. conventions of public speaking, Roman letters as a genre) and situates the works we study in their historical context.
Exam Format: Translation/comment

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LAT 5800 Sight Reading for Graduate Students
S-N only, 1 credit(s); max credits 6, 6 completions allowed; prereq Enrolled in a grad program in Department of Classical/Near Eastern Studies; Instructor: Nicholson, Oliver
Description: Student may contact the instructor or department for information.

LAT 5993 Directed Studies
1-4 credit(s), max credits 18, 18 completions allowed; prereq instr consent , dept consent ; Instructor: Nappa, Christopher
Description: Student may contact the instructor or department for information.

LAT 8910 Seminar: Philosophy and Society at Rome
3 credit(s), max credits 30, 10 completions allowed; prereq Grad student; Instructor: Cole, Spencer E
Description: This seminar will examine Roman philosophical culture from the republic to the early empire, paying particular attention to Stoicism, Skepticism, and Epicureanism. We will study the Greek sources of these philosophical schools, but our primary focus will be exploring how these philosophies were transformed, hybridized, and popularized at Rome. Students will gain a solid grasp of the theoretical aspects Roman philosophies as well as a heightened awareness of the relationship between intellectual fashions and political and social conditions. Readings include Cicero, Epictetus, Lucretius, and Seneca.

Latin American Studies
214 Social Sciences Tower

LAS 3401W Early Latin America to 1825
A-F only, 4 credit(s); Credit will not be granted if credit has been received for: HIST 3401W; Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive; Instructor: Chambers, Sarah C
Description: In 1519, Spaniard Hernan Cortes entered the dazzling capital city of the Mexico (Aztec) empire; what happened next depends upon whose versions of events you read. European accounts emphasize his daring capture of emperor Moctezuma and his rapid domination of central Mexico by the use of his wits and superior technology. Native accounts reveal that the capture of Moctezuma backfired, leading to a lengthy and heroic defense of the island city. Regardless of the telling, such encounters and struggles set the stage for European rule of the Americas for the next three centuries. This course begins with pre-contact Native American societies, but primarily explores the historical processes of colonialism in Latin America (especially Mexico, Brazil and Peru) between 1492 and 1825. We will study both the economic, religious, and administrative systems put in place by the Europeans, and the varied responses of indigenous peasants, African slaves, racially-mixed towndwellers, and women. We will learn to analyze primary documents from the period (such as the competing accounts of the conquest of Mexico) and read life stories as well as historical narratives. All students register for a discussion section. If you would like to practice your Spanish, sign up for the FLAC Section 5, in which you can read and discuss documents in the original Spanish. (Spanish majors: you can count this as your one degree course outside your department under the new rules).
Style: 65% Lecture, 35% Discussion. Graduation: 20% final exam, 50% reports/papers, 15% quizzes, 15% class participation.
Exam Format: i.d. terms and short essays.

LAS 3429 Latin American History in Film and Text
3 credit(s); Credit will not be granted if credit has been received for: HIST 3429; Meets CLE req of Arts/Humanities; meets CLE req of Global Perspectives; Instructor: Chambers, Sarah C
Description: In the past two decades, there has been a creative explosion of films and documentaries representing women in Latin America, past and present. This course invites you to reflect critically upon those cinematic representations by placing them in the context of other historical and fictional narratives. For example, what can we learn-about both the 17th and 20th centuries--by comparing the film “I, the Worst of All” (Dir. Maria Luisa Beremborg, 1990) with: Octavio Paz’s biography of the 17th-century Mexican nun upon which the film is based, the writings of Sor Juana herself, and the analysis of her work by literary critics? We will compare two film versions of the life of Mexican artist Frida Kahlo: the recent movie starring Salma Hayek and a Mexican film directed by Paul LeDuc in 1984. In addition to several other feature films, we will also explore the roles of women as directors and actors in the Latin American and Hollywood film industries. This course has been approved for the arts/humanities core and global perspectives theme requirements.
Style: 20% Lecture, 30% Discussion. viewing films
Grading: 40% reports/papers, 20% class participation, 40% other evaluation. written reactions to films and readings.

LAS 4121W Latin America
4 credit(s); Credit will not be granted if credit has been received for: GEOG 4121W; Meets CLE req of Writing Intensive; Instructor: Well, Connie
Description: This course explores the interplay of natural environment and history in shaping contemporary Latin America and its international relations. We will grapple with the meaningfulness of thinking in terms of regions. Issues addressed in the course include the political economy of natural resources, urbanization and the informal economy, differential well-being, and global-local connections. The course meets the Environment and International Perspectives designated-theme CLE requirements. It has been approved as a writing-intensive course.
Style: 60% Lecture, 10% Film/Video, 20% Discussion, 10% Small Group Activities.
Exam Format: short answer.
LAW 6003 Legal Research and Writing
A-F only, 4 credit(s); prerequisite consent
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 6005 Torts
A-F only, 4 credit(s);
Instructor: Weissbrodt, David
Description: Student may contact the instructor or department for information.

LAW 6005 Torts
A-F only, 4 credit(s);
Instructor: FWald, Barry C
Description: See description

LAW 6004 Civil Procedure
A-F only, 3-6 credit(s), max credits 12; prerequisite consent;
Instructor: STAFF
Description: See description

LAW 6009 Criminal Law
A-F only, 3 credit(s); prerequisite consent;
Instructor: STAFF
Description: See description

LAW 6014 Constitutional Law I
A-F only, 3 credit(s);
Instructor: Morrison, Fred L
Description: See description

LAW 6014 Constitutional Law II
A-F only, 3 credit(s);
Instructor: Carpenter II, Dale Allen
Description: See description

LAW 6025 Wrongful Convictions
A-F only, 2 credit(s);
Instructor: STAFF
Description: See description

LAW 6030 Contemporary Problems in Freedom on Speech and Press
A-F only, 3 credit(s); credit will not be granted if credit has been received for: JOUR 5777;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 6036 Reproductive Rights
A-F only, 3 credit(s);
Instructor: STAFF
Description: See description

LAW 6037 Nanotechnology and Society Seminar
A-F only, 3 credit(s);
Instructor: Kuzma, Jennifer
Description: This course will take an interdisciplinary approach to examining the legal, public policy, social, economic, and
ethical implications of nanotechnology. The course will explore the need to develop public policies for nanotechnology from the perspective of different stakeholders (federal agencies, the public, industry, the environment, international organizations, etc.) and examine and contrast different statutory objectives and regulatory strategies. The course will also draw on a diverse set of guest speakers and readings and will expose students to different types of policy problems. Students will explore different research methodologies used in the various disciplines that study ethical, legal, and social issues. Because nanotechnology is also a uniquely interdisciplinary field, requiring collaboration between scientists and engineers in virtually all the science disciplines, as well as social scientists, ethicists, lawyers, and policy analysts, enrollment by students with a broad range of interests is encouraged.

LAW 6039 Great Cases
A-F only, 3 credit(s);
Instructor: Stein, Robert A
Description: See description

LAW 6048 Financial Market Analysis for Lawyers
A-F only, 2 credit(s);
Instructor: Noyes, Dennis Lanu Thuc
Description: See description

LAW 6051 Business Associations/Corporations I
A-F only, 4 credit(s);
Instructor: STAFF
Description: See description

LAW 6053 Analytical Methods
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;
Instructor: STAFF
Description: See description

LAW 6057 Judicial Externship
P-F only, 2-3 credit(s), max credits 3, 1 completion allowed;
Instructor: STAFF
Description: See description

LAW 6058 Human Rights Advocacy
A-F only, 3 credit(s);
Instructor: STAFF
Description: See description

LAW 6060 Law, Public Policy, and Domestic Violence
A-F only, 3 credit(s);
Instructor: Baloss, Beverly
Description: See description

LAW 6100 Taxation I
A-F only, 3-4 credit(s);
Instructor: STAFF
Description: See description

LAW 6106 Federal Tax Procedure
A-F only, 2 credit(s);
Instructor: STAFF
Description: See description

LAW 6112 Accounting and Finance for Lawyers
A-F only, 3 credit(s);
Instructor: STAFF
Description: See description

LAW 6118 CL: Criminal Appeals
A-F only, 2 credit(s);
LAW 6126 Water Law  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description:

LAW 6153 Wills and Trusts  
A-F only, 3-4 credit(s), max credits 4, 1 completion allowed;  
Instructor: STAFF  
Description:

LAW 6201 Land Use Planning  
A-F only, 3 credit(s);  
Instructor: Burkhart, Ann M  
Description:

LAW 6202 Conflicts  
A-F only, 3 credit(s);  
Instructor: Cooper, Laura J  
Description:

LAW 6203 Labor Law  
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;  
Instructor: STAFF  
Description:

LAW 6213 Modern Real Estate  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description:

LAW 6215 Environmental Law  
A-F only, 3-4 credit(s), max credits 4, 1 completion allowed;  
Instructor: STAFF  
Description:

LAW 6218 Criminal Procedure  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description:

LAW 6219 Evidence  
A-F only, 3-4 credit(s), max credits 4, 1 completion allowed;  
Instructor: STAFF  
Description:

LAW 6220 Poverty Law  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description:

LAW 6224 Patents  
A-F only, 2-3 credit(s);  
Instructor: STAFF  
Description:

LAW 6226 Juvenile Justice  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description:

LAW 6227 Seminar: Products Liability  
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;  
Instructor: STAFF  
Description:

LAW 6231 Seminar: Patent Prosecution Practice  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description:

LAW 6234 Natural Resources  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description:

LAW 6241 First Amendment Law  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description:

LAW 6245 Interviewing, Counseling, and Negotiating  
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;  
Instructor: STAFF  
Description:

LAW 6402 Food and Drug Law  
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;  
Instructor: STAFF  
Description:

LAW 6600 Professional Responsibility  
A-F only, 2-3 credit(s);  
Instructor: STAFF  
Description:

LAW 6602 International Law  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description:

LAW 6603 Intellectual Property  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
Instructor: STAFF  
Description:

LAW 6604 Family Law  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description:

LAW 6605 Health Law  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description:

LAW 6606 Administrative Law  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description:

LAW 6607 Comparative Law  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description: See  
http://www.law.umn.edu/current/courseguide.html

LAW 6613 Copyright  
A-F only, 3 credit(s);  
Instructor: Ogedij, Ruth L  
Description: See  
http://www.law.umn.edu/current/courseguide.html

LAW 6618 Trial Practice  
A-F only, 3 credit(s); prerequisite Evidence;  
Instructor: STAFF  
Description: See  
http://www.law.umn.edu/current/courseguide.html

LAW 6619 International Trade Law  
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;  
Instructor: STAFF  
Description: See  
http://www.law.umn.edu/current/courseguide.html

LAW 6632 Employment Law
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6637 Environmental Justice and the BP Deepwater Horizon Oil Spill  
A-F only, 2 credit(s);  
Instructor: Osofsky,Hari Michele  
Description: Student may contact the instructor or department for information.

LAW 6702 Seminar: Legal History Workshop  
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;  
Instructor: Blumenthal,Susanna Lynn  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6704 Seminar: Mass Torts: What They Are and How To Resolve Them  
A-F only, 2 credit(s);  
Instructor: Zimmerman,Charles Selger  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6801 Seminar: Death Penalty  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6802 Seminar: Work as a Lawyer  
A-F only, 2 credit(s);  
Instructor: Kritzer,Herbert M  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6807 Seminar: Law of Coops  
A-F only, 2 credit(s);  
Instructor: Kopka,Christopher J  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6811 Seminar: Complex Litigation  
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6814 Seminar: RICO  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6829 Seminar: Health Care Transactions  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6831 Law, Race, and Social Psychology  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6834 Seminar: Habeas Corpus  
A-F only, 2 credit(s);  
Instructor: Keyes,Jeffrey J  
Description: Student may contact the instructor or department for information.

LAW 6837 Seminar: Contract Drafting  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6848 Seminar: Art of Appelate Advocacy  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6851 Seminar: Advanced Legal Research  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6854 Seminar: Biotechnology and Law  
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;  
Instructor: Goodwin,Michelle  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6860 Seminar: Advanced Topics in Labor and Employment Law  
A-F only, 2 credit(s);  
Instructor: Shaffer,Gregory Charles  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6861 Seminar: Transnational Legal Order  
A-F only, 2 credit(s);  
Instructor: Hasday,Jill E  
Description: Student may contact the instructor or department for information.

LAW 6865 Seminar: Business/Environmental Law  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6866 Seminar: Negotiations  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6867 Seminar: Election Law  
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6875 Seminar: Law, Health, and Life Sciences  
P-F only, 1 credit(s);  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6883 Seminar: Foreign Relations Law: Terrorism, Treaties, Federalism, and Human Rights Litigation  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6886 International Human Rights Law
LAW 6894 Seminar: Sentencing Policy  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6909 Seminar: Criminalization  
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6910 Seminar: Islamic Law  
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 6918 Seminar: Rule of Law  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 7000 CL: Civil Practice  
A-F only, 1-7 credit(s), max credits 7;  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 7010 Clinic: Innocence  
A-F only, 2-3 credit(s), max credits 6;  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 7012 CL: Environmental Sustainability  
A-F only, 3-7 credit(s), max credits 7, 1 completion allowed;  
Instructor: Cox, Prentiss  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 7012 CL: Environmental Sustainability  
A-F only, 3-7 credit(s), max credits 7, 1 completion allowed;  
Instructor: Coleman, Jeanna M  
Description: Student may contact the instructor or department for information.

LAW 7013 CL: Environmental Sustainability Directors  
A-F only, 2 credit(s);  
Instructor: Cox, Prentiss  
Description: Student may contact the instructor or department for information.

LAW 7015 Clinic: Worker Rights  
A-F only, 2-4 credit(s), max credits 8;  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 7020 CL: Special Education Law  
A-F only, 2-3 credit(s), max credits 6;  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 7021 CL: Special Education Director  
A-F only, 2 credit(s), max credits 4;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7055 Maynard Pirsig Moot Court  
A-F only, 1-2 credit(s), max credits 2; prereq dept consent;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7092 CL: Bankruptcy Clinic  
A-F only, 1-4 credit(s), max credits 4;  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 7098 CL: Indian Child Welfare Act  
A-F only, 1-7 credit(s), max credits 14;  
Instructor: STAFF  
Description: See http://www.law.umn.edu/current/courseguide.html

LAW 7100 Law Review Editors  
P-F only, 3 credit(s), max credits 12, 4 completions allowed; prereq instr consent;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7101 Law Review Associate Editors  
P-F only, 2 credit(s), max credits 4;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7102 Law Review Staff Member  
P-F only, 1-2 credit(s), max credits 4;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7200 Law and Inequality Journal Editor  
P-F only, 1-6 credit(s), max credits 9, 4 completions allowed; prereq instr consent;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7201 Law and Inequality Journal Associate Editor  
P-F only, 2 credit(s), max credits 4;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7202 Law and Inequality Journal Staff  
P-F only, 1-3 credit(s), max credits 6;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7300 Minnesota Journal of International Law  
P-F only, 1-6 credit(s), max credits 9, 4 completions allowed;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7302 Minnesota Journal of International Law Staff  
P-F only, 1-3 credit(s), max credits 6;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7400 Clinic: Human Rights Litigation and International Legal Advocacy  
A-F only, 3-7 credit(s), max credits 14; prereq dept consent;  
Instructor: Green, Jennifer Mary  
Description: See
http://www.law.umn.edu/current/courseguide.html

LAW 7401 Clinic: Human Rights Litigation and International Legal Advocacy
A-F only, 1-4 credit(s), max credits 4; prereq dept consent;
Instructor: Green, Jennifer Mary
Description: Student may contact the instructor or department for information.

LAW 7500 CL: Misdemeanor Defense
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;
Instructor: STAFF
Description: The educational goals of this clinic are knowledge, understanding of, and the ability to practice in a criminal justice system. This course involves supervised student representation of persons charged with misdemeanor and gross misdemeanor offenses in Hennepin County District Court. Student attorneys represent clients at all stages of the criminal process, including arraignments, pretrial conferences, and trials. Student attorneys attend at least three arraignment sessions where they interview individuals who have charges pending against them on that day's arraignment calendar. The student attorney evaluates the charges, negotiates with the City Attorney, and appears with the client in court. Student attorneys in the clinic follow up on cases they open up at arraignments, and some of these cases may go all the way through a jury trial. A weekly two-hour lecture is devoted to misdemeanor laws and procedure, trial and advocacy skills, evidence problems as related to criminal law, and other areas of law and procedure related to the local criminal justice system. Student attorneys are required to participate in one ride-along with a police department in the metro area. Prerequisites: None

LAW 7550 CL: Misdemeanor Prosecution
A-F only, 2-3 credit(s), max credits 3, 1 completion allowed;
Instructor: STAFF
Description: The educational goals of this clinic are knowledge, understanding of, and the ability to practice in a criminal justice system. This course involves the supervised prosecution of individuals charged with petty misdemeanors, misdemeanors, and gross misdemeanors in Ramsey and Hennepin County District Court. Prosecution students are supervised by prosecutors in several different jurisdictions in Hennepin and Ramsey District Court. Students handle cases at all stages of the criminal process, including arraignments, pretrial conferences and court trials. The weekly two-hour class component of the clinic includes lectures, simulations and role playing. The lectures are substantive and procedural aspects of criminal law and on skills performance. The simulations and role playing involve the pre-trial and trial skills necessary to be an effective advocate in the criminal justice system. The students are also required to participate in one ride-along with a police department. Prerequisites: None

LAW 7551 CL: Misdemeanor Prosecution and Defense
A-F only, 3-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Simon, Steve Mark
Description: Student may contact the instructor or department for information.

LAW 7600 Minnesota Journal of Law, Science, and Technology
P-F only, 1-6 credit(s), max credits 6, 4 completions allowed;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7602 Minnesota Journal of Law, Science, and Technology Staff
P-F only, 1-3 credit(s), max credits 6;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7675 CL: Child Advocacy
A-F only, 1-7 credit(s), max credits 7;
Instructor: STAFF
Description: The Child Advocacy Clinic is a two-semester clinic offered annually since 1995. The clinic gives students practical experience in handling family law and juvenile law cases with an emphasis on children's rights. Weekly classroom sessions cover such topics as interviewing, negotiation, and motion practice. Students earn a total of four credits to be allocated between the semesters. Beginning in the fall semester, students handle three to four cases over the academic year. The cases are selected to provide students with a variety of experience in pretrial procedure, negotiation, discovery, and courtroom practice. The Child Advocacy Clinic also has a project with the Hennepin County Public Defender's Office to provide representation to juveniles in CHIPS (Children in Need of Protection and Services) matters in juvenile court. Additional cases involve family court custody and Guardian ad Litem representation for the Hennepin County Guardian ad Litem program. The clinic is designed with a classroom component, a simulation component and an actual case-handling component in family and juvenile court. The classroom and simulation portions of the course occur during the first semester. The classroom component consists of topics specifically relating to children's issues including child development and interviewing children. The simulation component revolves around mock cases designed to familiarize students with family and juvenile court procedure. The actual case component of the course stretches over both semesters.

LAW 7842 CL: Immigration and Human Rights
A-F only, 2-7 credit(s), max credits 14;
Instructor: STAFF
Description: The Immigration Law Clinic handles immigration law matters, primarily applications for political asylum, withholding of removal, and Article 3 claims under the Convention Against Torture. Students will interview clients, research country conditions, write legal memoranda on asylum issues, and prepare and present claims to the Immigration and Naturalization Service, the Immigration Court, and the Board of Immigration Appeals under the student practice rule. Each student will handle up to two asylum cases. Students can choose from cases presented affirmatively to the Immigration and Naturalization Service and those presented defensively before the Immigration Court. Students appearing before the Court will handle case and client preparation and courtroom appearances. It is preferred that students have prior experience in or exposure to asylum law or other aspects of immigration law, but neither is required. Enrollment is generally limited to six students. Interested students should write a brief statement of interest and/or experience. Students will be notified if they have been selected for the Immigration Law Clinic shortly after finals end. Students who participate in the Immigration Law Clinic will add the clinic through the drop/add process in the Fall.

LAW 7860 CL: Multi-Profession Business Law
A-F only, 2-4 credit(s), max credits 8;
Instructor: STAFF
Description: The Minnesota Multi-Profession Business Law Clinic is a two-semester, 6-credit experience for 3Ls. Students enrolled in the clinic have the opportunity to gain broad transactional experience working with startup businesses and entrepreneurial clients. Students work with clients whose legal needs are transactional. Transactional practice includes the creation and interpretation of contracts and agreements. It also includes strategizing about legal issues of business formation, management, and governance. The delivery model is different from other clinics at the law school in several respects. Typically, law school clinic clients need assistance to resolve a dispute with another person or a government entity. Dispute resolution is not a part of clinic practice in the Minnesota Multi-Profession Business Law Clinic. As participants in this multi-profession clinic, students work with attorneys, accountants, and business consultants. This aspect of clinic practice closely replicates the practice of business law. Experienced business law and corporate group attorneys from several law firms and accounting firms supervise teams of law students working with clients who apply for clinic services. The 42-hour transactional skills curriculum component of the clinic includes extensive practice in negotiation and drafting, as well as self-assessments of problem
solving and communication styles. The curriculum also includes segments on client interviewing and negotiation ethics. Students are encouraged to learn about themselves as practitioners.

**LAW 7950 CL: Tax Clinic**
A-F only, 2-4 credit(s), max credits 4;
Instructor: STAFF
**Description:** The Tax Clinic, first offered in 1981, is composed of two components. First, the clinic provides an opportunity for law students to represent low income taxpayers who have a controversy with the IRS. Representation can occur at audit, in the Appeals Office, in the collection process, before the U.S. Tax Court or, on occasion, before the U.S. District Court or 8th Circuit. In addition representation may also extend to controversies with the MN Department of Revenue. Clinic students do not prepare tax returns. The clinic receives client referrals from the IRS and Tax Court in addition to those that come from community organizations (such as free tax assistance sites). Students in the clinic are also asked to participate in community education and outreach, since approximately one-third of our clients speak English as a second language. A clinic seminar meets weekly for both semesters. The seminar provides training in lawyering skills, such as interviewing, counseling, negotiation, and professional responsibility. In addition, guest speakers at the seminar from the IRS, the Minnesota Department of Revenue, and practicing bar provide useful information about the practice of tax law. Students must have taken (or be concurrently enrolled in) Federal Tax Procedure. Tax I is encouraged as well. Each year three students are selected to serve as directors in the clinic during their third year. Each summer the Tax Clinic hires three students to work full-time in the clinic. If you are interested in serving as a director during your third year for academic credit or a summer job for pay, preference is given to students enrolled in the Tax Clinic (i.e., enroll in your second year to be eligible).

**Learning and Academic Skills**
104 Eddy Hall

**LASK 1001 Mastering Skills for College Success**
2 credit(s);
Instructor: Slattery, William Scott
**Description:** Study smarter ... not harder. Despite being bright and working hard, many students at the U. find they are unable to get the most out of their academic efforts; working hard doesn't always translate into the grades and performance they are looking for. LASK 1001 [Mastering Skills for College Success] was designed to address skills, strategies and approaches to help students become more efficient & effective in their academic efforts. The course focuses on five key areas for academic success: 1. Active Learning approaches; 2. Self-awareness & Learning Style; 3. Academic Skills (in areas such as note taking, exams, memory, reading, papers, etc.); 4. Balance Skills (in areas such as time & stress management); and, 5. Engagement & Campus Resources (awareness & utilization). LASK 1001 balances lecture with hands-on application to help students get the most from their efforts.

**Style:** 40% Lecture, 10% Film/Video, 30% Discussion, 10% Small Group Activities, 5% Student Presentation, 5% Field Trips.

**Grading:** 12% mid exam, 12% final exam, 16% reports/papers, 38% special projects, 22% reflection paper.

**LASK 1102 Academic Refresher**
S-N only, 1 credit(s); prereq instr consent
Instructor: Slattery, William Scott
**Description:** Always behind? Always playing “catch-up”? Received an academic alert? Stressed about how to make the grades you need? Sometimes academic progress doesn’t go as planned and students struggle. LASK 1101 [Academic Refresher] is a Mid-Semester (Term B) course designed to assist students over the final 7 weeks of the semester who are experiencing concerns about their academic progress. Through individualized planning and course assignments, students work with academic success consultants to develop & put into action a personal plan for success. Course focus is mainly on reaching academic goals for the current semester, however, students also learn skills and strategies to build ongoing success.

**Style:** 40% Lecture, 40% Discussion, 20% Small Group Activities.

**Grading:** 35% special projects, 15% written homework, 25% attendance, 25% class participation.

**LASK 1102 Academic Success**
S-N only, 2 credit(s), max credits 4; prereq instr consent; preference given to students on academic probation or returning from academic suspension;
Instructor: Slattery, William Scott
**Description:** This course was developed mainly for students on academic probation [it is also an excellent option for students returning to campus from an academic suspension or who may have significant concerns about academic performance]. LASK 1102 offers skilled assistance in identifying barriers in academic performance and developing plans for effective, ongoing scholarship. Information, skill development & performance enhancement are emphasized. Course objectives are achieved through weekly didactic instruction, assignments & small group participation.

**Style:** 45% Lecture, 5% Film/Video, 20% Discussion, 30% Small Group Activities.

**Grading:** 25% special projects, 40% attendance, 35% class participation.

**Liberal Studies**
20 Classroom Office Building

**LS 5100 Liberal Studies Seminar:** Money: Decadence, Greed, Communal Redemption
A-F only, 3 credit(s), max credits 24, 24 completions allowed; prereq dept consent;
Instructor: Galt, Margot Kriel
**Description:** Our current debacle has prodded film-makers, financial historians, and first-person participants to attempt depictions and explanations. Take a broad perspective on “Eight Centuries of Financial Folly,” the subtitle of a 2009 book by Carmen Reinhart and Kenneth Rogoff called “This Time Is Different.” Of course, this time is not different. Using Reinhart and Rogoff’s survey of financial crises and their effects, focus on three or four American experiences with depressions: the American south from Reconstruction to World War II—Tenant farming, depletion of the land, and the hope offered by industrial “villages” and their communal ethos, the Great Plains and the agricultural damage begun in World War I and culminating in the Dust Bowl. Our last “case study” will be on what’s happening now with Lawrence G. McDonald’s insider story of “A Colossal Failure of Common Sense: The Inside Story of the Collapse of Lehman Brothers,” view “American Casino,” a documentary of Bear Stearns: build-up of fraudulent mortgage-bonds and the eventual debacle that their collapse has helped determine.

**LS 5100 Liberal Studies Seminar:** Journalism, Citizens, and the Future of the News
A-F only, 2 credit(s), max credits 24, 24 completions allowed; prereq dept consent;
Instructor: Iggers, Jeremy Frankli
**Description:** The digital revolution has placed powerful new communications technologies in the hands of ordinary citizens: notebook computers, digital cameras, camcorders, and mobile phones. Blogs and emails have made it possible for nearly non-professionals to broadcast images and messages around the world, or to create new audiences in their neighborhood. At the same time, traditional news media are in crisis: nationally and locally, newspapers are experiencing sharp cuts in budgets, and sharp declines in readership. Washington Post reporter Praveen Fari asks: “The question is, if newspapers, online or on paper,
don't provide the resources to report on their communities in depth, who will?" Explore why traditional journalism is in crisis, and the potentials and pitfalls of the new forms of news. Can non-professional "citizen journalists" fill the gap?

**LS 5100 Liberal Studies Seminar: Shaping the Future of Place: Public Art**

- **A-F only, 2 credit(s), max credits 24, 24 completions allowed; prereq dept consent**
- **Instructor:** Ullman, Rosly B

**Description:** The Shaping the Future of Place: Public Art as a Crucible for Change and Sustainability

**Courses:**
- A Ferdowsi 12
- EDU 12
- LAS 12
- LSC 12
- LAT 12
- LTH 12
- MIF 12
- MLL 12
- MSE 12
- MSA 12
- NRE 12
- OSX 12
- POG 12
- RUS 12
- SCS 12
- STH 12
- SWP 12
- TGS 12
- TOL 12

- **Grading:** See syllabus for grading information.

**LS 5100 Liberal Studies Seminar: Designing Professional Futures**

- **A-F only, 3 credit(s), max credits 24, 24 completions allowed; prereq dept consent**
- **Instructor:** Tomsynck, John Peter

**Description:**

- **Instructor:** Tomsynck, John Peter

**Grading:** See syllabus for grading information.

**LS 5100 Liberal Studies Seminar: Introduction to Innovation Studies**

- **A-F only, 3 credit(s), max credits 24, 24 completions allowed; prereq dept consent**
- **Instructor:** Tomsynck, John Peter

**Description:**

- **Instructor:** Tomsynck, John Peter

**Style:** 100% Web Based.

**Grading:** 40% reports/papers. - Discussion posts on readings (12%) - Research and discussion posts on innovation Web sites (12%) - 10 innovation simulations (10%) - 12 skills exercises (12%) - 14 evaluations (14%)

**LS 5100 Liberal Studies Seminar: The Heritage of Hope**

- **A-F only, 2 credit(s), max credits 24, 24 completions allowed; prereq dept consent**
- **Instructor:** Nerias, Julie

**Description:** The Heritage of Hope

**Courses:**
- A Ferdowsi 12
- EDU 12
- LAS 12
- LSC 12
- LAT 12
- LTH 12
- MIF 12
- MLL 12
- MSE 12
- MSA 12
- NRE 12
- OSX 12
- POG 12
- RUS 12
- SCS 12
- STH 12
- SWP 12
- TGS 12
- TOL 12

- **Grading:** See syllabus for grading information.

**LS 5100 Liberal Studies Seminar: Trends in Arts and Cultural Organizations**

- **A-F only, 3 credit(s), max credits 24, 24 completions allowed; prereq dept consent**
- **Instructor:** Schock, Bonnie J

**Description:** Trends in Arts and Cultural Organizations

**Courses:**
- A Ferdowsi 12
- EDU 12
- LAS 12
- LSC 12
- LAT 12
- LTH 12
- MIF 12
- MLL 12
- MSE 12
- MSA 12
- NRE 12
- OSX 12
- POG 12
- RUS 12
- SCS 12
- STH 12
- SWP 12
- TGS 12
- TOL 12

- **Grading:** See syllabus for grading information.

**LS 5100 Liberal Studies Seminar: Chaos and Complexity**

- **A-F only, 3 credit(s), max credits 24, 24 completions allowed; prereq dept consent**
- **Instructor:** Shupe, David Arlin

**Description:** Chaos and Complexity

**Courses:**
- A Ferdowsi 12
- EDU 12
- LAS 12
- LSC 12
- LAT 12
- LTH 12
- MIF 12
- MLL 12
- MSE 12
- MSA 12
- NRE 12
- OSX 12
- POG 12
- RUS 12
- SCS 12
- STH 12
- SWP 12
- TGS 12
- TOL 12

- **Grading:** See syllabus for grading information.

**LS 5950 Special Topics: Psychology of Sustainability**

- **A-F only, 1 credit(s), max credits 12, 12 completions allowed; prereq dept consent**
- **Instructor:** Manning, Christine

**Description:** The Psychology of Sustainability

**Courses:**
- A Ferdowsi 12
- EDU 12
- LAS 12
- LSC 12
- LAT 12
- LTH 12
- MIF 12
- MLL 12
- MSE 12
- MSA 12
- NRE 12
- OSX 12
- POG 12
- RUS 12
- SCS 12
- STH 12
- SWP 12
- TGS 12
- TOL 12

- **Grading:** See syllabus for grading information.

**This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.**
urgency with realistic hope; and reconnecting with nature. For each recommendation, real-world examples will be presented. Participants will be encouraged to generate their own ideas and apply the material to situations from their own experiences

**LS 5950 Special Topics: Managing Change by Appreciative Inquiry**
A-F only, 1 credit(s); max credits 12, 3 completions allowed; prereq dept consent ;
Instructor: Schuelke, L David
Description: <cb>Managing Change by Appreciative Inquiry: An Organizational Exploration</cb> Change is inevitable. However the traditional approaches have been problem-centered. What happens when change agents change themselves? How can the lens make a difference? Using methods developed by Cooperrider and others, explore organizations from the postivistic appreciative perspective. By making more of success energy, change may be less stressful and more effective and efficient. Take the opportunity to apply appreciative inquiry techniques of your choosing. The final result may be longer lasting change by more satisfied change agents.

**LS 8001 Introduction to Interdisciplinary Inquiry**
A-F only, 3 credit(s); prereq MLS student, dept consent ;
Instructor: Gustafson, Donna Mae J
Description: 

**LS 8002 Final Project for Graduate Liberal Studies**
A-F only, 3 credit(s); prereq MLS; all MLS coursework must be completed by end of sem, dept consent ;
Instructor: Lock, Peter William
Description: Students synthesize/complete final project.

**Linguistics**
214 Nolte Center

**LING 1701 Language and Society**
4 credit(s);
Instructor: STAFF
Description: When you talk, you give out clues about who you are and where you come from. Sociolinguists have found that patterns of language use are affected by age, gender, socioeconomic status, ethnicity, and other aspects of people and situations. This course reflects on the relationship between language and such social variables. We will also examine multilingual situations such contact between speakers of different languages, and their implications for language loss and language change. Implications of sociolinguistic findings for educators will also be discussed.
Grading: 20% mid exam, 20% final exam, 20% reports/papers, 40% reflection paper.

**LING 1701 Language and Society**
4 credit(s);
Instructor: Olsen, Caroledith
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. The course introduces you to the ways in which sociolinguists study language and what we know about linguistic behavior across languages and cultures. Understanding the relationship between language and society offers a window into human behavior that can enhance almost any endeavor, from teaching, to traveling, to falling in love. At the conclusion of this course, you should be able to: --identify the features of language that vary with context, and how they vary; --identify the social dimensions that affect language choices; --understand how social and linguistic variables interact and result in particular ways of speaking; --distinguish how these variables and their consequences are instantiated in a variety of cultures; and --evaluate sociolinguistic data and discussion.
Style: Online with handwritten exams
Grading: 25% mid exam, 25% final exam, 15% reports/papers, 35% written homework.
Exam Format: Two supervised, in-person (not online) exams.

**LING 3001 Introduction to Linguistics**
4 credit(s); Credit will not be granted if credit has been received for: LING 3001H;
Instructor: STAFF
Description: This course is a general introduction to the various subfields of linguistics, the discipline devoted to the nature of human language, its basis in cognition, and its role in human affairs. The main emphasis in the course will be on the structural components of language: syntax (phrase and sentence structure), morphology (word structure), phonology (sound structure), and semantics/pragmatics (meaning). Students will learn about how human languages can differ from one another and how they are alike; they will also learn basic techniques for describing and analyzing linguistic data through working on examples taken from various languages of the world. An understanding of structural components of language will also serve as the basis for an introduction to subfields of linguistics concerned with how languages change over time (historical linguistics, the nature and cause of regional and social variation and diversity within a given language (sociolinguistics), how languages are learned by children and by adults learning a second language (language acquisition), and the biological basis of language in the brain (neurolinguistics). The course will be conducted through lectures and discussions. Course requirements include regular assignments, a midterm and a final. Target audience is anyone with an interest in the nature of human language.
Style: 80% Lecture. 20% Discussion.
Grading: 30% mid exam, 35% final exam, 35% problem solving.
Exam Format: Short answer

**LING 3001H Honors: Introduction to Linguistics**
4 credit(s); prereq Honors candidate or instr consent ; Credit will not be granted if credit has been received for: LING 3001;
Instructor: STAFF
Description: This course is an introduction to the scientific study of human language. The course offers basic technical skills and foundational concepts required for language analysis, as well as an enhanced awareness of the goals, problems and promise of linguistic inquiry. Emphasis will be on the structure of human language. General questions include: what are the basic properties of human language? How do languages differ and how are they all alike? To what extent is human language part of the biological endowment of all humans and to what extent must it be learned? We will examine data from a variety of languages at the level of sound, sentence structure, meaning and use, exploring variation and similarity both across and within languages. Specific topics include: phonetics and phonology (how do we describe and analyze the sounds and sound patterns of human language?), morphology and syntax (what are the structures of words and sentences?), semantics and pragmatics (how do we interpret language?) We will also discuss topics in historical-comparative linguistics (how do languages change over time, how are they related to one another and what methods are used in determining such relationships?), language acquisition (how are languages learned, by children as a first language and by children and adults as a second language?), and the relation between language and culture.

**LING 3051H Honors: Thesis**
3 credit(s); prereq Linguistics honors candidate, instr consent ;
Instructor: STAFF
Description: Independent research and writing of honors BA thesis, under the guidance of a faculty member selected according to student's topic. Details of work are determined in consultation with faculty advisor. Target audience: Linguistics majors in CLA Honors Program
Style: independent research, writing
Grading: 100% other evaluation. Research progress as determined by faculty advisor.
LING 3101W Languages of the World
3 credit(s); prereq 3001 or 3001H or 5001 or instr consent ;
Meets CLEreq of Writing Intensive;
Instructor: STAFF
Description: In this course we will survey several methods used in the classification of languages, examining genetic and typological classifications in greater depth. We will explore what each reveals about the relationships and range of variation found in the world's languages. The second half of the semester will survey representative languages and language families throughout the world, examining sample languages in greater depth for where they fit into the classification systems examined earlier. In each region studied, specific linguistic phenomena which are particularly well-developed in that region will be examined and compared, as appropriate, to related structures in languages known to class members. Students will investigate a language of their choice in some depth and present their findings in a final course project.
Style: 70% Lecture, 30% Discussion.
Grading: 20% final exam, 30% reports/papers, 20% quizzes, 10% class participation, 20% problem solving.
Exam Format: multiple choice, fill-in, matching, short answer

LING 3721 Bilingualism
3 credit(s); prereq 1701 or 3001 or 3001H or 5001; 
Instructor: Junghare,Indira Y
Description: Student may contact the instructor or department for information.

LING 4002 Linguistic Analysis
3 credit(s); prereq 3001 or 3001H or 5001 or instr consent ;
Instructor: Kac,Michael B
Description: This is a postintroductory course in problem-solving techniques for morphology, syntax and phonology. The problems are drawn from a variety of languages and language families: the emphasis is on identifying and describing significant generalizations in the linguistic data rather than on theoretical issues.
Style: 70% Lecture. Small-group problem-solving work in class.
Grading: 33% final exam, 66% other evaluation. assignments
Exam Format: problems comparable to the ones given on assignments

LING 4002 Linguistic Analysis
3 credit(s); prereq 3001 or 3001H or 5001 or instr consent ;
Instructor: Marcotte,Jean-Philippe
Description: This post-introductory course has three goals: improving problem-solving techniques for morphological, phonological, and syntactic analysis; learning to present detailed, complete solutions to analysis problems using the descriptive and explanatory concepts of generative linguistics; exposing students to a range of different grammatical phenomena from a range of different languages.
Style: 25% Lecture, 75% Small Group Activities.
Grading: 33% final exam, 67% written homework.
Exam Format: Problems comparable to the ones given on assignments

LING 5001 Introduction to Linguistics
4 credit(s); prereq grad or instr consent; Credit will not be granted if credit has been received for: LING 3001;
Instructor: Marcotte,Jean-Philippe
Description: Student may contact the instructor or department for information.

LING 5206 Linguistic Pragmatics
3 credit(s); prereq 5201 or instr consent; 
Instructor: Reese,Brian Jon
Description: Student may contact the instructor or department for information.

LING 5206 Linguistic Pragmatics
3 credit(s); prereq 5201 or instr consent; 
Instructor: Reese, Brian Jon
Description: Student may contact the instructor or department for information.

LING 5208 Linguistic Pragmatics
3 credit(s); prereq 5201 or instr consent; 
Instructor: Reese, Brian Jon
Description: Student may contact the instructor or department for information.

LING 5461 Conversation Analysis
3 credit(s); prereq 3001 or 3001H or 5001 or instr consent ;
Credit will not be granted if credit has been received for: COMM 5461;
Instructor: Sheldon PhD,Amy
Description: Students will videotape a 30-45 minute conversation that they are a participant in at the beginning of the course. You will apply concepts from our readings on selected topics in the analysis of spoken discourse to short excerpts from your recording. These will be presented in an informal workshop format for discussion with the class. Small projects involving transcription, software use where relevant, and applications will prepare you for a longer more complex term project with your data. Recording equipment from OIT, recording space (if needed), and video storage at Media Mill will be provided. The content of the course can be shaped by student interest to the extent possible.

LING 5900 Topics in Linguistics: Linguistics of Japanese Storytelling
3 credit(s), max credits 12, 3 completions allowed;
Instructor: Szatrowski, Polly Ellen
Description: LING5900-Sec002:LINGUISTICS OF JAPANESE STORYTELLING How do Japanese speakers tell stories in conversation? In this course we will investigate the structure and linguistic forms used in storytelling across Japanese conversational genre (including animation narratives, storytelling in casual conversation, interviews and lectures), and how this expression of embodied experience shapes and is shaped by language. Using actual stories videotaped in Japanese conversational interaction, we will investigate how participants use verbal/nonverbal devices to allocate specific structural roles in the participation framework (storyteller, co-teller, addressed and non-addressed recipient), create story structure, and evaluate events. We will investigate the negotiation of information between knowing and unknowing participants (using topicalization, focus, contrast, reference, ellipsis, proximal and distal demonstratives), and the establishment of time and perspective (past/non-past tense alternation). Finally, we will examine how participants negotiate the tellability (newsworthiness) of their stories using evaluative devices (style shift, onomatopoeia, quotation, constructed dialogue, repetition, etc.), and how they use stories to make points, justify opinions, and create alignments that connect with larger social identities. PREREQUISITES: LING3001 or 3001H or 5001, JPN 1012, OR permission of the instructor. MAIN TEXT: Szatrowski, Polly, ed. In press. Storytelling across Japanese conversational genre. Amsterdam: John Benjamins. Coursepack consisting of research papers and readings from the following texts: Maynard, Senko K. 1989. Japanese conversation through structure and interactional management. Norwood, NJ: Ablex. Chafe, Wallace, ed. 1990. The bear stories: Cognitive, cultural, and linguistic aspects of narrative production. Ablex Publishing Corporation. Iwasaki, Shoichii. 1993. Subjectivity in grammar and discourse. Amsterdam: John Benjamins. Karatsu, Mariko. 2004. A study of storytelling in Japanese conversation. University of Minnesota: Ph.D. Dissertation. Style: 40% Lecture, 30% Discussion.
Grading: 40% reports/papers, 30% written homework, 30%
in-class presentation. Major paper, abstract, presentation: 40%; Written homework and data collection: 30% In-class presentation: 30%

LING 5900 Topics in Linguistics: Categories, Metaphor, and the Mind
3 credit(s), max credits 12, 3 completions allowed;
Instructor: Szatrowski, Polly Ellen
Description: LING5900-Sec001: CATEGORIES, METAPHOR AND THE MIND In this course we will explore the relation between categories, metaphor and the mind. We will review methods of categorization including family resemblance, markedness, and prototypes, and examine the notion of frames in relation to socio-cultural phenomena. We will address the question of how metaphor and categories shape and are shaped by perception, embodied behavior and thought, and the relation between thought, language and culture. The data will come from categories and metaphors for color, food, language, tense-aspect, emotions, thinking, space, etc. in a variety of languages, including English, Japanese, German, Hausa, and Ojibwa. READINGs: chapters selected from the following books and other research papers.


Style: 40% Lecture, 30% Discussion, 30% Student Presentation.
Grading: 40% reports/papers, 30% written homework, 30% class participation. Major paper, abstract, presentation: 40%; Written homework and data collection: 30% In-class presentation: 30%

LING 5993 Directed Study
1-3 credit(s), max credits 10, 10 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: Szatrowski, Polly Ellen
Description: Student may contact the instructor or department for information.

LING 5993 Directed Study
1-3 credit(s), max credits 10, 10 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: Gundel, Jeanette K
Description: Student may contact the instructor or department for information.

LING 5993 Directed Study
1-3 credit(s), max credits 10, 10 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: Stenson, Nancy J
Description: Student may contact the instructor or department for information.

LING 5993 Directed Study
1-3 credit(s), max credits 10, 10 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: Soh, Hooi Ling
Description: Student may contact the instructor or department for information.

LING 8991 Independent Study
1-4 credit(s), max credits 15, 15 completions allowed;
Instructor: Cochran, Anne Noelle
Description: Student may contact the instructor or department for information.

LING 8991 Independent Study
1-4 credit(s), max credits 15, 15 completions allowed;
Instructor: Stenson, Nancy J
Description: Student may contact the instructor or department for information.

LING 8991 Independent Study
1-4 credit(s), max credits 15, 15 completions allowed;
Instructor: Soh, Hooi Ling
Description: Student may contact the instructor or department for information.

Management
3-353 Carlson School of Management

MGMT 1001 Contemporary Management
A-F only, 3 credit(s); prereq Carlson School fr or soph;
Instructor: Cohen, Anne Noelle
Description: Student may contact the instructor or department for information.

MGMT 1001 Contemporary Management
A-F only, 3 credit(s); prereq Carlson School fr or soph;
Instructor: Miller, Philip Jordan
Description: Student may contact the instructor or department for information.

MGMT 1001 Contemporary Management
A-F only, 3 credit(s); prereq Carlson School fr or soph;
Instructor: Shah, Pri Pradhan
Description: Student may contact the instructor or department for information.

MGMT 1001 Contemporary Management
A-F only, 3 credit(s); prereq Carlson School fr or soph;
Instructor: Li, Min
Description: Student may contact the instructor or department for information.

MGMT 1001 Contemporary Management
A-F only, 3 credit(s); prereq [Fr or soph] honors;
Instructor: Zellmer-Bruhn, Mary Elizabeth
Description: Student may contact the instructor or department for information.

MGMT 3001 Fundamentals of Management
A-F only, 3 credit(s);
Instructor: Goldman, Joseph Richard

MGMT 3001 Fundamentals of Management
A-F only, 3 credit(s);
Instructor: Fine, Alan Raymond
Description: Student may contact the instructor or department for information.

MGMT 3001 Fundamentals of Management
A-F only, 3 credit(s);
Instructor: Fox, Isaac J
Description: Student may contact the instructor or department for information.
MGMT 3001 Fundamentals of Management
A-F only, 3 credit(s);
Instructor: Benaouane, Sid A.
Description: Student may contact the instructor or department for information.

MGMT 3001 Fundamentals of Management
A-F only, 3 credit(s);
Instructor: Kaiser, David
Description: This is a fully online section offered through Online and Distance Learning (ODL). College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid information. This course is designed for students who intend to work in a business environment. You will begin by learning the basic concepts and terminology of management. As you progress through the course materials, you will begin to understand the components of a manager's job as he or she analyzes and chooses options to benefit the organization. By the time you complete this course, you will begin to understand how the components of a manager's job come together in effective leadership and communication to manage people.

Style: 100% Web Based.
Grading: 14% mid exam, 28% final exam, 8% quizzes. 9 group discussions (18%) - 1 individual writing assignment (17%) - 1 group project (15%)
Exam Format: Supervised, in-person, final exam.

MGMT 3004 Business Strategy
A-F only, 3 credit(s);
Instructor: Cohen, Anne Noelle
Description: Student may contact the instructor or department for information.

MGMT 3010 Introduction to Entrepreneurship
A-F only, 4 credit(s);
Instructor: STAFF
Description: This course provides an overview to students regarding the role of entrepreneurship in our economy and to the process of new venture creation. The course is intended to broadly introduce the set of skills known to have an impact on entrepreneurial success. The students are introduced to various forms of entrepreneurial pursuits including independent start-ups, venturing within established organizations, franchising, and acquiring existing businesses. The course is delivered through formal lecture, guest speakers, group work and a variety of experiential exercises. Key learning objectives: (1) Provide basic concepts and terminology of management. As you progress through the course materials, you will begin to understand the components of a manager's job as he or she analyzes and chooses options to benefit the organization. By the time you complete this course, you will begin to understand how the components of a manager's job come together in effective leadership and communication to manage people.

MGMT 3033V Business Communication
A-F only, 3 credit(s);
Instructor: STAFF
Description: This section of Mgmt 3033 Business Communication will focus on important business communications concepts like audience analysis, persuasion, correspondence, discussion, presentations, and visual aids. The course will begin by covering these basics. Then you will apply these basics while working in small teams to complete a project for a local non-profit, small community business, or service organization. You will have some choice as to what project you would like to select. You will meet a few times with representatives from that organization, but this is not traditional volunteering. Instead you will be completing a project for the organization. The way that an outside consulting team might.

Some examples of projects might include creating a marketing plan for the organization, designing a website, surveying clientele to provide customer service recommendations, creating a database, writing brochures, fliers, or other literature, developing a plan to recruit volunteers or new employees. Benefits of taking this section include working with non-profits and small businesses, doing real-life projects, creating documents and projects that will actually be used and can be shown to perspective employers, taking part in community activities, working with diverse groups of people, and becoming aware of community issues and concerns. There is one, outside of class, required lab session for this course.

Style: 20% Lecture, 80% Discussion.
Grading: 10% mid exam, 15% reports/papers, 50% special projects, 15% in-class presentation, 10% class participation.
Exam Format: essay

MGMT 3033W Business Communication
A-F only, 3 credit(s);
Instructor: Cohen, Anne Noelle
Description: This section of Mgmt 3033 Business Communication will focus on important business communications concepts like audience analysis, persuasion, correspondence, discussion, presentations, and visual aids. The course will begin by covering these basics. Then you will apply these basics while working in small teams to complete a project for a local non-profit, small community business, or service organization. You will have some choice as to what project you would like to select. You will meet a few times with representatives from that organization, but this is not traditional volunteering. Instead you will be completing a project for the organization. The way that an outside consulting team might.

Some examples of projects might include creating a marketing plan for the organization, designing a website, surveying clientele to provide customer service recommendations, creating a database, writing brochures, fliers, or other literature, developing a plan to recruit volunteers or new employees. Benefits of taking this section include working with non-profits and small businesses, doing real-life projects, creating documents and projects that will actually be used and can be shown to perspective employers, taking part in community activities, working with diverse groups of people, and becoming aware of community issues and concerns. There is one, outside of class, required lab session for this course.

Style: 20% Lecture, 80% Discussion.
Grading: 10% mid exam, 15% reports/papers, 50% special projects, 15% in-class presentation, 10% class participation.
Exam Format: essay

MGMT 3033W Business Communication
A-F only, 3 credit(s);
Instructor: Littlefield, Holly A
Description: This section of Mgmt 3033 Business Communication will focus on important business communications concepts like audience analysis, persuasion, correspondence, discussion, presentations, and visual aids. The course will begin by covering these basics. Then you will apply these basics while working in small teams to complete a project for a local non-profit, small community business, or service organization. You will have some choice as to what project you would like to select. You will meet a few times with representatives from that organization, but this is not traditional volunteering. Instead you will be completing a project for the organization. The way that an outside consulting team might.

Some examples of projects might include creating a marketing plan for the organization, designing a website, surveying clientele to provide customer service recommendations, creating a database, writing brochures, fliers, or other literature, developing a plan to recruit volunteers or new employees. Benefits of taking this section include working with non-profits and small businesses, doing real-life projects, creating documents and projects that will actually be used and can be shown to perspective employers, taking part in community activities, working with diverse groups of people, and becoming aware of community issues and concerns. There is one, outside of class, required lab session for this course.

Style: 20% Lecture, 80% Discussion.
Grading: 10% mid exam, 15% reports/papers, 50% special projects, 15% in-class presentation, 10% class participation.
Exam Format: essay

MGMT 3033W Business Communication
A-F only, 3 credit(s);
Instructor: Syverson MA, JoAnn
Description: This section of Mgmt 3033 Business Communication will focus on important business communications concepts like audience analysis, persuasion, correspondence, discussion, presentations, and visual aids. The course will begin by covering these basics. Then you will apply these basics while working in small teams to complete a project for a local non-profit, small community business, or service organization. You will have some choice as to what project you would like to select. You will meet a few times with representatives from that organization, but this is not traditional volunteering. Instead you will be completing a project for the organization. The way that an outside consulting team might.

Some examples of projects might include creating a marketing plan for the organization, designing a website, surveying clientele to provide customer service recommendations, creating a database, writing brochures, fliers, or other literature, developing a plan to recruit volunteers or new employees. Benefits of taking this section include working with non-profits and small businesses, doing real-life projects, creating documents and projects that will actually be used and can be shown to perspective employers, taking part in community activities, working with diverse groups of people, and becoming aware of community issues and concerns. There is one, outside of class, required lab session for this course.

Style: 20% Lecture, 80% Discussion.
Grading: 10% mid exam, 15% reports/papers, 50% special projects, 15% in-class presentation, 10% class participation.
Exam Format: essay

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
opportunities to develop critical thinking and applied skills through both speaking and writing assignments that simulate real business communication. Students take part in writing, speaking, discussions, interviews, and other communications activities. This course should help students to: Communicate credibly and deliver both written and spoken messages that are adapted to the specific needs of the audience and situation; Understand differences in message design and audience interpretation of the various forms of business communication; Realize the persuasive strategies most effective in writing and speaking situations; Understand the persuasive effect of presenting quantitative information and appealing to audience logic or emotions; Demonstrate effective nonverbal communication skills; Critically judge information and information sources; Build sound arguments, using data and logic, when delivering a persuasive message; Use technology to increase the effectiveness of communication.

Style: 20% Lecture, 80% Discussion.
Grading: 10% mid exam, 40% reports/papers, 40% in-class presentation, 10% class participation.

MGMT 3040 Understanding the International Environment of Firms: International Business
A-F only, 2 credit(s); prereq 1001 or 1001H or 3001;
Instructor: Fox, Isaac J
Description: Student may contact the instructor or department for information.

MGMT 3040 Understanding the International Environment of Firms: International Business
A-F only, 2 credit(s); prereq 1001 or 1001H or 3001;
Instructor: Malen, Joel Baker
Description: Student may contact the instructor or department for information.

MGMT 3070 Topics in Management: Financing Entrepreneurial Ventures
A-F only, 2 credit(s), max credits 12, 3 completions allowed;
Instructor: Fine, Alan Raymond
Description: This course is designed to help students understand and develop the necessary tools to assess financing needs at different stages of organizational growth, develop financial forecasts, and utilize various valuation methodologies and financing tools to effectively negotiate/evaluate financing needs, and acquire relevant strategic financing that will enable the organization to maneuver towards successful outcomes. This includes ensuring that the organization is able to cope effectively with the ongoing cash flow challenges associated with successfully managing a venture. The course is also designed to assist the student in understanding the financing perspectives of relevant parties (the entrepreneur, banker and investor) to the negotiations.

MGMT 3603 Topics: Environmental Issues
A-F only, 3 credit(s); prereq [MATH 1142 or [MATH 1271, MATH 1272]], [APEC 1101 or ECON 1101 or 3261W]; Credit will not be granted if credit has been received for: ESPM 3603;
Instructor: Hill, Jason David
Description: Student may contact the instructor or department for information.

MGMT 3604 Topics: Environmental Issues
A-F only, 3 credit(s);
Instructor: Smith, Tim
Description: Student may contact the instructor or department for information.

MGMT 4002 Managerial Psychology
A-F only, 4 credit(s);
Instructor: Albert, Stuart
Description: Student may contact the instructor or department for information.

MGMT 4004W Business Policy: Strategy Formulation and Implementation
A-F only, 3 credit(s); prereq 3040, 90 cr, completion of business core courses; Credit will not be granted if credit has been received for: MGMT 3004; Meets CLE req of Writing Intensive;
Instructor: Vandaie, Ramin
Description: Student may contact the instructor or department for information.

MGMT 4008 Entrepreneurial Management
A-F only, 4 credit(s); prereq 3010, CSOM upper div; completion of core recommended;
Instructor: Keller, Linda Hall
Description: This course focuses on developing the students' ability to manage a business enterprise. It explores how business models change from start-up through maturity, as well as the key challenges at each stage of growth. It also explores organizational leadership methodologies as they pertain to stakeholder management, strategic planning, management development, control systems, financial analysis and financing. This course concludes with the employment of course learning through the examination of a live case. Key Learning Objectives: 1) Understand business growth and the typical problems encountered 2) Understand the challenges of a growing business and how to manage growth and change 3) Learn how to assess the interests of key stakeholders and how to manage these relationships 4) Sharpen entrepreneurship skills and competencies of problem-solving, decision-making, communication, innovation, sales, negotiations and leadership.

MGMT 4050 Management of Innovation and Change
A-F only, 2 credit(s); prereq 3010 or instr consent credit will not be granted if credit received for: 5050;
Instructor: Spruth, Steve
Description: MGMT 4050: Management of Innovation and Change This course focuses on the process of creating innovative new businesses or entrepreneurial ventures. Special attention is paid to understanding the sequence of events that typically unfold among individuals, groups, organizations, and industries as innovations develop from concept through implementation, and what paths along this journey are likely to lead to success and failure. The course is based on concepts and findings from the Minnesota Innovation Research Program and other research studies. Special emphasis is given to understanding the development of organizational learning, leadership, external relationships, infrastructure and implementation during the innovation journey. This course also provides training in diagnostic methods for analyzing cases or problems, arguing proposals, evaluating conceptual models, and implementing solutions. Students get opportunities to apply course topics and methods by diagnosing a case of innovation or entrepreneurial of their own choosing. By learning these concepts and methods students can increase their odds of successfully maneuvering organizational innovation and change journeys.
Style: 20% Lecture. 30% Discussion, 10% Small Group Activities, 20% Student Presentation, 10% Guest Speakers, 10% Web Based.
Grading: 50% special projects, 25% in-class presentation, 25% class participation.

MGMT 4170W New Business Feasibility and Planning
A-F only, 4 credit(s); prereq 4008; Meets CLE req of Writing Intensive;
Instructor: Bell, Frank J
Description: Student may contact the instructor or department for information.

MGMT 4171 Entrepreneurship in Action I
A-F only, 4 credit(s); prereq 3010, [4008 or Concurrent registration is required (or allowed) in 4008), completed coursework in business core, CSOM upper division, approved application;
Instructor: Stavig, John
Description: Student may contact the instructor or department for information.
MGMT 5019 Business, Natural Environment, and Global Economy
A-F only, 2 credit(s); prerequisite MBA student; Credit will not be granted if credit has been received for: ESPM 5019;
Instructor: Marcus, Alfred A
Description: Student may contact the instructor or department for information.

MGMT 6004 Negotiation Strategies
A-F only, 2 credit(s); prerequisite MBA student;
Instructor: Abrams, Lori J
Description: Student may contact the instructor or department for information.

MGMT 6031 Industry Analysis and Competitive Strategy
A-F only, 4 credit(s); prerequisite MBA 6300, MBA student;
Instructor: Wang, Richard D
Description: Student may contact the instructor or department for information.

MGMT 6032 Strategic Alliances
A-F only, 2 credit(s); prerequisite MBA student;
Instructor: Madzar, Svjetlana
Description: Student may contact the instructor or department for information.

MGMT 6033 Managing the Strategy Process
A-F only, 2 credit(s); prerequisite MBA student;
Instructor: Sapienza, Harry Jack
Description: Student may contact the instructor or department for information.

MGMT 6034 Strategic Leadership
A-F only, 2 credit(s); prerequisite 6033, MBA student;
Instructor: Wright, Michael William
Description: Student may contact the instructor or department for information.

MGMT 6040 International Strategy and Organization
A-F only, 2 credit(s); prerequisite MBA student;
Instructor: Madzar, Svjetlana
Description: Student may contact the instructor or department for information.

MGMT 6050 Management of Innovation and Change
A-F only, 2 credit(s); prerequisite MBA student;
Instructor: Spruth, Steve
Description: Student may contact the instructor or department for information.

MGMT 6084 Management of Groups
A-F only, 2 credit(s); prerequisite MBA student;
Instructor: Madzar, Svjetlana
Description: Student may contact the instructor or department for information.

MGMT 6085 Corporate Strategy
A-F only, 4 credit(s); prerequisite MBA student;
Instructor: Shaver, Myles
Description: Student may contact the instructor or department for information.

MGMT 6100 Topics in Management: Corporate Responsibility
A-F only, 2 credit(s), max credits: 4; prerequisite CSOM grad student;
Instructor: Shaver, Myles
Description: Student may contact the instructor or department for information.

MGMT 6110 Managing People and Organizations
A-F only, 2 credit(s); prerequisite MBA student;
Instructor: Hydrie, Yelena
Description: Student may contact the instructor or department for information.

MGMT 6305 The International Environment of Business
A-F only, 2 credit(s); prerequisite MBA student;
Instructor: Bartlett, David Louis
Description: Student may contact the instructor or department for information.

MGMT 8301 Seminar in Organizational Behavior
4 credit(s); prerequisite Business admin PhD student or instructor consent;
Instructor: Shah, Pri Pradhan
Description: Student may contact the instructor or department for information.

MGMT 8402 Seminar in Strategy Process
4 credit(s); prerequisite Business admin PhD student or instructor consent;
Instructor: Sapienza, Harry Jack
Description: Student may contact the instructor or department for information.

Management of Technology
510 WBOB

MOT 4001 Leadership, Professionalism and Business Basics for Engineers
A-F only, 2 credit(s);
Instructor: Surprenant, Tess Marie
Description: Student may contact the instructor or department for information.

MOT 8112 Management Accounting
A-F only, 2 credit(s); prerequisite Grad MOT major;
Instructor: Caliendo, Charles Michael
Description: Student may contact the instructor or department for information.

MOT 8114 Strategic Technology Analysis
A-F only, 2 credit(s); prerequisite Grad MOT major;
Instructor: Carlson, Lockwood
Description: Student may contact the instructor or department for information.

MOT 8121 Managing Organizations in a Technological Environment
A-F only, 2 credit(s); prerequisite Grad MOT major;
Instructor: Soni, Tarun
Description: Student may contact the instructor or department for information.

MOT 8133 Communication in a Technical Environment
A-F only, 2 credit(s); prerequisite Grad MOT major;
Instructor: Wilbers, Stephen
Description: Student may contact the instructor or department for information.

MOT 8212 Developing New Technology Products
A-F only, 2 credit(s); prerequisite Grad MOT major;
Instructor: Carlson, Lockwood
Description: Student may contact the instructor or department for information.

MOT 8224 Pivotal Technologies
A-F only, 2 credit(s); prerequisite MOT grad major;
Instructor: Amin, Massoud
Description: Student may contact the instructor or department for information.

MOT 8233 Strategic Management of Technology
A-F only, 2 credit(s); prerequisite Grad MOT major;
Instructor: Marcus, Alfred A
Description: Student may contact the instructor or department for information.
MOT 8234 Capstone Project
A-F only, 0.5-2 credit(s); max credits 2; prereq Completion of two semesters, grad MOT major;
Instructor: Amor Marcus
Description: Student may contact the instructor or department for information.

MOT 8900 Conflict Management
0.5 credit(s); prereq Grad MOT major;
Instructor: Fluitak, Thomas Richard
Description: Student may contact the instructor or department for information.

MOT 8910 Corporate Responsibility
A-F only, 1 credit(s); prereq Grad MOT major;
Instructor: Marcus, Alfred A
Description: Student may contact the instructor or department for information.

MOT 8920 Science and Technology Policy
A-F only, 1.5 credit(s); prereq MOT grad student;
Instructor: Polla, Dennis L
Description: Student may contact the instructor or department for information.

Managerial Communications
4-300 Carlson School of Management

MCOM 5400 Managerial Communications for the HR Professional
A-F only, 2 credit(s); prereq HRIR student;
Instructor: Bork, EdD, Joseph T.
Description: MCOM 5400. Fall 2009 Session A Managerial Communication for Human Resource Professionals Fall 2009 Session A Saturdays: 9:00 a.m. to 3:00 p.m. September 19, 26, October 3, and October 17, 2008 Carlson Room L-122
Instructor: Joseph T. Bork, M.M., Ed.S. Contact: jbork@csom.umn.edu or borkx007@umn.edu Phone: 763-656-3527 Required Presentation Zen, Simple ideas on Presentation Design and Delivery Author: Reynolds, Garr
Edition: ISBN: 978-0-321-52565-9 Bring a One Gig or higher flashdrive to each class (We do this so your powerpoint can be loaded on the computer as quickly as possible) Guide to Presentations Author: Munter, Mary
Edition: ISBN: 0131755234 Publisher: Prentice Hall PTR GUIDE TO MANAGERIAL COMMUNICATION Author: MUNTER, Mary
Edition: ISBN: 9780131467040 Publisher: PEARSON ED The Course: Quite often workplace communication involves memos, directives, policy statements, email notes, website development, and company gatherings. All of these are formal and scripted. We will analyze those formal communications, but we will also try to dissect how the audience processes your message, perceives those messages, and then acts upon the information. I have tried to create this learning experience to be one that involves raising your competency in the areas of memo writing, generating oral and written presentations, and management of the infamous “grapevine.” The central purpose of this course is to understand the principles of formal and informal communication from both the receiver and the sender within the organization. 1. To learn how to create a formal message to the organization (within an HR environment). 2. To assess how the message will be interpreted (internal and external stakeholders). 3. To identify how many different types of communication vehicles can be used to permeate the organization. 4. To discover and develop how communication inside and outside of the company can be used as a catalyst towards higher levels of profitability in the organization. 5. To create a system of good communication within the company. Here are some study topics that should be reviewed before taking this course: 1. The communication process. 2. The role of Human Resources within the organization. 3. Organizational behavior. 4. External and Internal stakeholders. Course Requirements- Your Introduction to the class: Within the required textbooks by Garr Reynolds and Dr. Mary Munter several themes resound in each chapter. To be an effective communicator and competent HR professional you are required to lead meetings, act as an advocate for employees in group activities, deliver bad news, and sell ideas to peers and upper management. See the email sent to you prior to class. Project: Style: 10% Lecture, 10% Film/Video, 10% Discussion, 10% Small Group Activities, 40% Student Presentation, 20% Demonstration. Grading: 20% quizzes, 80% in-class presentation. You will be required to develop a written strategic plan that chronicles a major shift in business practices within the organization and orchestrate a presentation regarding implementation to senior management. The effects of the change will require Exam Format: Quizzes and exams will be short textbook answer with an awesome example attached.

MCOM 5500 Strategic Managerial Communication (Comprehensive Course)
A-F only, 4 credit(s), max credits 8; prereq MBA student;
Instructor: Syverson, MA, JoAnn
Description: Student may contact the instructor or department for information.

MCOM 5510 Persuasive Writing in Business
A-F only, 2 credit(s); prereq MBA student;
Instructor: Smith, Sandra S
Description: Student may contact the instructor or department for information.

MCOM 5530 Strategies and Skills for Managerial Presentations
A-F only, 2 credit(s); prereq MBA student;
Instructor: Smith, Sandra S
Description: Student may contact the instructor or department for information.

Manufacturing Technology
20 Classroom Office Building

MT 3001 Manufacturing in a Global Economy
A-F only, 3 credit(s);
Instructor: King, William Tyler
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit “Class URL” for ODL policy, fee, and financial aid information. In today's changing global economy, high-performing manufacturing operations must function at the intersection of three important dimensions: Leadership, Product Quality, and Innovation. This course breaks down each dimension in detail and explains how all three are interrelated and necessary to achieve sustainable profitability.
Style: 100% Web Based.
Grading: 10% Lecture, 10% Film/Video, 10% Discussion, 10% Demonstrations.
Project: 1 group charter (2%), 3 discussion activities (14%), 15 discussion activities (7%), 6 individual papers (29%), 1 final paper (48%)
Marketing
3-150 Carlson School of Management

MKTG 3001 Principles of Marketing
A-F only, 3 credit(s); prereq ECON 1101;
Instructor: Nelson, Elaine W
Description: Student may contact the instructor or department for information.

MKTG 3001 Principles of Marketing
A-F only, 3 credit(s); prereq ECON 1101;
Instructor: Mackenzie, Lydia May
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a student group. Visit “Class URL” for ODL policies, including fee and financial aid restrictions. Principles and historical foundations of total quality. Best practices of high-performing quality organizations. Role of leadership and strategic planning. How to implement continuous improvement in manufacturing processes. Baldrige criteria, ISO 9000 standards, Lean Six Sigma.

Style: 100% Web Based.
Grading: 15% final exam, 10% online discussions (22%) - self-introduction (2%) - 15% in-class presentation, 10% written responses to group exercises (10%) - 12% textbook questions (10%) - 10 problem sets (10%) - 3 unit projects (30%)

MKTG 3001 Principles of Marketing
A-F only, 3 credit(s); prereq ECON 1101;
Instructor: Lasaleta, Jannine Daun
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a student group. Visit “Class URL” for ODL policies, including fee and financial aid restrictions. Principles and historical foundations of total quality. Best practices of high-performing quality organizations. Role of leadership and strategic planning. How to implement continuous improvement in manufacturing processes. Baldrige criteria, ISO 9000 standards, Lean Six Sigma.

Style: 100% Web Based.
Grading: 15% final exam, 10% online discussions (22%) - self-introduction (2%) - 15% in-class presentation, 10% written responses to group exercises (10%) - 12% textbook questions (10%) - 10 problem sets (10%) - 3 unit projects (30%)

MKTG 3001 Principles of Marketing
A-F only, 3 credit(s); prereq ECON 1101;
Instructor: Cui, Tony Hailao
Description: Student may contact the instructor or department for information.

MKTG 3001 Principles of Marketing
A-F only, 3 credit(s); prereq ECON 1101;
Instructor: Chole, Jay
Description: Student may contact the instructor or department for information.

MKTG 3010 Marketing Research
A-F only, 4 credit(s); prereq [3001 or Concurrent registration is required (or allowed) in 3001], [OMS 2550 or equiv];
Instructor: Viswanathan, Madhu
Description: Student may contact the instructor or department for information.

MKTG 3010 Marketing Research
A-F only, 4 credit(s); prereq [3001 or Concurrent registration is required (or allowed) in 3001], [OMS 2550 or equiv];
Instructor: Shacham, Rachel
Description: Student may contact the instructor or department for information.

MKTG 3040 Buyer Behavior
A-F only, 4 credit(s); prereq 3001, [3010 or Concurrent registration is required (or allowed) in 3010] credit will not be granted if credit already received for: Mktg 4040;

Examination Format: Supervised, in-person (not online) exams

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
MKTG 3040 Buyer Behavior
A-F only, 4 credit(s); prereq 3001, [3010 or Concurrent registration is required (or allowed) in 3010] credit will not be granted if credit already received for: Mktg 4040; Instructor: Murray, John A
Description: Student may contact the instructor or department for information.

MKTG 4030 Sales Management
A-F only, 4 credit(s); prereq 3001, 3010, 3040; Instructor: Mueller, Wayne G
Description: Student may contact the instructor or department for information.

MKTG 4050 Integrated Marketing Communications
A-F only, 4 credit(s); prereq 3001, 3010, 3040; Instructor: Ahluwalia, Rohini
Description: Student may contact the instructor or department for information.

MKTG 4060 Marketing Channels
A-F only, 4 credit(s); prereq 3001, 3010, 3040; Instructor: Belich, PhD, Thomas James
Description: Student may contact the instructor or department for information.

MKTG 4080W Marketing Strategy
A-F only, 4 credit(s); prereq 3001, 3010, 3040, 12 cr in marketing, sr; Meets CLE req of Writing Intensive; Instructor: Upton, Kevin John
Description: Student may contact the instructor or department for information.

MKTG 4082W Brand Management
A-F only, 4 credit(s); prereq 3001, 3010, 3040; Meets CLE req of Writing Intensive; Instructor: Torelli, Carlos
Description: Student may contact the instructor or department for information.

MKTG 6051 Marketing Research
A-F only, 4 credit(s); prereq MBA 6210, MBA student; Instructor: Ebert, Jane E J
Description: Student may contact the instructor or department for information.

MKTG 6055 Buyer Behavior
A-F only, 4 credit(s); prereq MBA 6210, MBA student; Instructor: Goodyear, Steve
Description: Student may contact the instructor or department for information.

MKTG 6060 Distribution and Supply Chain Systems
A-F only, 4 credit(s); prereq MBA 6210, MBA student; Instructor: Belich, PhD, Thomas James
Description: Student may contact the instructor or department for information.

MKTG 6072 International Marketing
A-F only, 2 credit(s); prereq MBA 6210, MBA student; Instructor: Murray, John A
Description: Student may contact the instructor or department for information.

MKTG 6075 Pricing Strategy
A-F only, 4 credit(s); prereq MBA 6210, MBA student; Instructor: Bergen, Mark Edward
Description: Student may contact the instructor or department for information.

MKTG 6078 Integrated Marketing Communications
A-F only, 4 credit(s); prereq MBA 6210, MBA student; Instructor: Marinovich, John
Description: Student may contact the instructor or department for information.

MKTG 6088 Strategic Marketing
A-F only, 2 credit(s); prereq MBA 6210, MBA student; Instructor: Murray, John A
Description: Student may contact the instructor or department for information.

Master of Business Administration
2-210 Carlson School of Management

MBA 6030 Financial Accounting
A-F only, 3 credit(s); prereq Evening MBA Student; Instructor: Gigler, Frank
Description: Student may contact the instructor or department for information.

MBA 6030 Financial Accounting
A-F only, 3 credit(s); prereq Evening MBA Student; Instructor: Duke, Gordon Leon
Description: This course introduces the topic of financial accounting for U.S. organizations. The purpose of financial accounting is to provide information to owners of the firm and other interested parties to serve as the basis for making decisions about that firm. The student who successfully completes this class will be able to read, analyze and understand U.S. financial statements that are prepared both under the general rules of U.S. accounting (US GAAP) and under the international accounting rules (IFRS).
Style: 80% Lecture, 20% Discussion.
Grading: see website:
https://netfiles.umn.edu/users/gduke2/www
Exam Format: see website:
https://netfiles.umn.edu/users/gduke2/www

MBA 6035 Managerial Accounting

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
A-F only, 3 credit(s); prereq 6030, 6230, MBA student;  
Instructor: White, Paul Andrew  
Description: Student may contact the instructor or department for information.

MBA 6035 Managerial Accounting  
A-F only, 3 credit(s); prereq 6030, 6230, MBA student;  
Instructor: Kanodia, Chandra S  
Description: Student may contact the instructor or department for information.

MBA 6120 Data Analysis and Statistics for Managers  
A-F only, 3 credit(s); prereq MBA student;  
Instructor: Chervany, Norman Lee  
Description: Student may contact the instructor or department for information.

MBA 6120 Data Analysis and Statistics for Managers  
A-F only, 3 credit(s); prereq MBA student;  
Instructor: Huchendorf, Steven Craig  
Description: Student may contact the instructor or department for information.

MBA 6150 Managerial Communications  
A-F only, 1 credit(s); prereq MBA student;  
Instructor: Lederer, Sally Ann  
Description: Student may contact the instructor or department for information.

MBA 6150 Managerial Communications  
A-F only, 1 credit(s); prereq MBA student;  
Instructor: Littlefield, Holly A  
Description: Student may contact the instructor or department for information.

MBA 6210 Marketing Management  
A-F only, 3 credit(s); prereq MBA student;  
Instructor: Upton, Kevin John  
Description: Student may contact the instructor or department for information.

MBA 6210 Marketing Management  
A-F only, 3 credit(s); prereq MBA student;  
Instructor: Lipe, Jay  
Description: Student may contact the instructor or department for information.

MBA 6220 Operations Management  
A-F only, 3 credit(s); prereq MBA student;  
Instructor: Hill PhD, Arthur V  
Description: Student may contact the instructor or department for information.

MBA 6220 Operations Management  
A-F only, 3 credit(s); prereq MBA student;  
Instructor: Sinha, Kingshuk Kanti  
Description: Student may contact the instructor or department for information.

MBA 6220 Operations Management  
A-F only, 3 credit(s); prereq MBA student;  
Instructor: Shah, Rachna  
Description: Student may contact the instructor or department for information.

MBA 6230 Financial Management  
A-F only, 3 credit(s); prereq 6030, MBA student;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

MBA 6300 Strategic Management  
A-F only, 3 credit(s); prereq MBA student;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

MBA 6315 The Ethical Environment of Business  
A-F only, 2 credit(s); prereq MBA student;  
Instructor: Weinstein, Charles Aaron  
Description: Student may contact the instructor or department for information.

MBA 6315 The Ethical Environment of Business  
A-F only, 2 credit(s); prereq MBA student;  
Instructor: Marcus, Alfred A  
Description: Student may contact the instructor or department for information.

MBA 6501 Carlson Funds Enterprise: Growth  
2-4 credit(s), max credits 12, 3 completions allowed; prereq MBA student or [applied to or accepted in] spring of 1st yr; [6031, ACCT 6100, ACCT 6160, MBA student, emphasis in finance mgmt] recommended;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

MBA 6502 Carlson Funds Enterprise: Fixed Income  
2-4 credit(s), max credits 12, 3 completions allowed; prereq [Applied to or accepted in] spring-A of 1st yr to begin in spring-B; [6031, ACCT 6100, ACCT 6160, MBA student, emphasis in finance mgmt] recommended;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

MBA 6503 Carlson Ventures Enterprise  
OPT No Aud, 2-4 credit(s), max credits 12, 3 completions allowed; prereq MBA student, approved application, interview;  
Instructor: Nord, Tobin Lawrence  
Description: Student may contact the instructor or department for information.

MBA 6504 Carlson Consulting Enterprise  
OPT No Aud, 2-4 credit(s), max credits 12, 3 completions allowed; prereq MBA student, approved application, interview;  
Instructor: Hill PhD, Arthur V  
Description: Student may contact the instructor or department for information.

MBA 6505 Carlson Brand Enterprise  
OPT No Aud, 2-4 credit(s), max credits 12, 3 completions allowed; prereq MBA student, approved application, interview;  
Instructor: Hopkins, David K  
Description: Student may contact the instructor or department for information.

Master of Business Taxation  
3-108 Carlson School of Management

MBT 5200 Tax Accounting Methods and Periods  
A-F only, 4 credit(s); prereq ACCT 5135, MBT student;  
Instructor: STAFF  
Description: This course covers rules affecting timing of income and deductions for tax purposes. Topics include cash and accrual accounting methods overall and with respect to individual items of income and deductions, and rules for changing accounting methods and changing accounting periods.

MBT 5220 Tax Research, Communication, and Practice  
A-F only, 4 credit(s); prereq ACCT 5135, MBT student;  
Instructor: Guterman, Paul Gerard  
Description: This is an ambitious, demanding fundamental
masters-level course on tax research and IRS practice and procedure. Objectives include: (i) obtaining an overview and understanding of tax research resources, (ii) learning how to use such resources to conduct effective tax research; (iii) learning how to analyze what you find by knowing what different authorities mean in themselves and in relation to each other; (iv) learning the technical materials of Subtitle F of the Code (such as penalties, statute of limitations, interest, etc.); (v) learning how to interpret and resolve conflicting authority; (vi) learning how the IRS audits and the IRS Appeals process including the most effective ways to deal with the IRS; and (vii) learn how to communicate your tax research results. In conjunction with the last objective we do nine different research exercises, including research memos and a protest letter. We also do two editing exercises, including an edit of a fellow student’s memo.

Style: 80% Lecture, 5% Discussion, 15% Small Group Activities.

Grading: 52% reports/papers, 30% special projects, 18% quizzes.

Exam Format: There are 3 in-class multiple-choice quizzes that cover the material on IRS Practice and Procedure.

MBT 5230 Corporate Taxation I
A-F only, 2 credit(s); prereq ACCT 5135, MBT student;
Instructor: Sellner, Mark A
Description: This course covers the federal income taxation of corporations and shareholders. Topics include organization of a corporation; establishment of its capital structure; determination of its tax liability; dividends and other nonliquidating distributions; stock redemptions and liquidations.

MBT 5346 FAS 109 Computations and Analysis
A-F only, 2 credit(s); prereq 5230, MBT student;
Instructor: Sellner, Mark A
Description: This course covers the financial accounting and reporting standards for the effects of income taxes that result from corporate activities, as well as FIN 48 uncertain tax positions. Topics include computation of current and deferred tax expense or benefit, temporary differences, carryforwards, computation of deferred tax assets and liabilities, valuation allowances, business combinations, investments in subsidiaries and equity method investments, foreign operations, tax allocations, and interim period tax calculations.

MBT 5370 Taxation of Property Transctions
A-F only, 2 credit(s); prereq Acct 5135, MBT student;
Instructor: Miller, Rebecca Jo Phil
Description: This course covers the tax law and judicial doctrine related to capital assets, depreciable property used in a trade or business and real estate assets. Topics include adjusted basis issues; components of amounts realized from property transactions; depreciation recapture; installment sales; like-kind exchanges; and involuntary conversions.

MBT 5380 Tax Aspects of International Business I
A-F only, 2 credit(s); prereq 5320, MBT student;
Instructor: Eckberg, Dennis L
Description: This course covers the U.S. taxation of foreign operations of U.S.-based corporations and application of international tax concepts to the basic business decisions faced by multinational businesses. Topics include taxing jurisdictions, choice of entity for foreign operations, source of income and expenses, foreign tax credits, subpart F, and outbound structuring.

MBT 5420 Current Topics in Taxation
A-F only, 1-4 credit(s), max credits 4, 1 completion allowed;
prereq ACCT 5135, MBT student;
Instructor: Sellner, Mark A
Description: Tax research/compliance, other tasks. Students submit summary paper. Primarily used for international students who need 1 credit for internship to fulfill visa requirement.

MDP 5001 Ways of Knowing and Sustainable Livelihoods
A-F only, 2 credit(s); prereq Grad MDP major or instr consent;
Instructor: Sheppard, Eric
Description: Student may contact the instructor or department for information.

Materials Science
151 Amundson Hall

MATS 1001 Advances in Chemical Engineering and Materials Science
S-N only, 1 credit(s); prereq credit will not be granted if credit received for: ChEn 1001; Recommended for [chemical engineering, materials science/engineering] majors; Credit will not be granted if credit has been received for: CHEN 1001;
Instructor: Mc Cormick, Alon Victor
Description: Student may contact the instructor or department for information.

MATS 2001 Introduction to the Science of Engineering Materials
A-F only, 3 credit(s); prereq CHEM 1021, MATH 1272, PHYS 1301W, CSE student;
Instructor: Schott, Jeffrey H.
Description: Student may contact the instructor or department for information.

MATS 2002 Introduction to the Science of Engineering Materials Laboratory
A-F only, 1 credit(s); prereq [2001 or Concurrent registration is required (or allowed) in 2001], IT student;
Instructor: Schott, Jeffrey H.
Description: Student may contact the instructor or department for information.

MATS 3011 Introduction to Materials Science and Engineering
3 credit(s); prereq CHEM 1021, [MATH 1272 or MATH 1372], PHYS 1302, CSE student;
Instructor: Mkhoyan, Andre
Description: Student may contact the instructor or department for information.

MATS 3011 Introduction to Materials Science and Engineering Materials Laboratory
3 credit(s); prereq CHEM 1021, [MATH 1272 or MATH 1372], PHYS 1302, CSE student;
Instructor: Mkhoyan, Andre
Description: Student may contact the instructor or department for information.

MATS 3012 Metals and Alloys
A-F only, 3 credit(s); prereq [3011, [MatS or ChEn upper div]] or instr consent;
Instructor: Shores, David A
Description: Student may contact the instructor or department for information.

MATS 3041 Industrial Assignment I
A-F only, 2 credit(s); prereq MatS upper div, completion of required courses in MatS program through fall sem of 3rd yr, GPA of at least 2.80, regis in co-op program; Credit will not be granted if credit has been received for: CHEN 3041;
Instructor: STAFF
Description: MatS 3041. Industrial Assignment I. (2 cr, MatS upper div, regis in MatS co-op program, completion of required courses in MatS program through Fall semester/3rd yr) First industrial work assignment in engineering co-op program. Evaluation based on formal written report describing the semester’s work assignment.

Style: On-the-job training
Grading: 100% reports/papers.
MATS 3801 Structural Characterization Lab  
A-F only, 3 credit(s); prereq [3011, MatS upper div] or dept consent;  
Instructor: Leighton, Chris  
Description: Student may contact the instructor or department for information.

MATS 4001 Thermodynamics of Materials  
A-F only, 4 credit(s); prereq MatS upper div;  
Instructor: Wentzczowitch, Renata M  
Description: Student may contact the instructor or department for information.

MATS 4013 Electrical and Magnetic Properties of Materials  
A-F only, 3 credit(s); prereq [3011, upper div [MatS or ChEn]] or instr consent;  
Instructor: Holmes, Russell James  
Description: Student may contact the instructor or department for information.

MATS 4041 Industrial Assignment II  
A-F only, 2 credit(s); prereq 3041, completion of required courses in MatS program through fall sem of 4th yr, GPA of at least 2.80, registration in co-op program; Credit will not be granted if credit has been received for: CHEN 4041;  
Instructor: STAFF  
Description: Mats 4041. Industrial Assignment II (2 cr., regis in MatS co-op program, completion of required courses in MatS program through Fall semester/yr 4) Second industrial work assignment in MatS co-op program. Application of Materials Science principles to the solution of engineering design problems in an industrial work environment. Evaluation based on formal written report emphasizing design issues derived from work assignment.  
Style: On-the-job training  
Grading: 100% reports/papers.

MATS 4212 Ceramics  
A-F only, 3 credit(s); prereq [3011, [MatS or ChEn upper div]] or instr consent;  
Instructor: Francis, Lorraine F  
Description: The first part of the course will cover materials fundamentals (structure, bonding, phase equilibria, interfaces, defects, microstructure) as they apply to crystalline and non-crystalline ceramics. The second part will be devoted to the properties of ceramics: thermal, mechanical, electrical and optical. Special topics such as composites and thin films will also be included. There will be several "mini-labs" which will coincide with some major topics in the course. These mini-labs will involve demonstrations and hands-on experiments in the Materials Science & Engineering teaching labs (rm B30). Mini-labs will take place during class time.  
Style: 80% Lecture, 10% Discussion. Demonstrations/hands-on  
Grading: 40% mid exam, 25% final exam, 10% reports/papers, 25% problem solving.  
Exam Format: Problems; short answer

MATS 4221 Materials Design and Performance  
A-F only, 4 credit(s); prereq MatS 3012 or instr consent;  
Instructor: Gerberich, William W  
Description: Student may contact the instructor or department for information.

MATS 4401 Senior Design Thesis I  
A-F only, 2 credit(s); prereq =: 4400; MatS senior, dept consent, GPA of at least 3.00, project approval by faculty adviser;  
Instructor: Francis, Lorraine F  
Description: Student may contact the instructor or department for information.

MATS 4511W Corrosion and Electrochemistry of Corrosion  
A-F only, 4 credit(s); prereq MatS 3011 or instr consent, upper div CSE or grad; Meets CLE req of Writing Intensive;  
Instructor: Shores, David A  
Description: Student may contact the instructor or department for information.

MATS 4512 Corrosion and Electrochemistry of Corrosion  
4 credit(s); prereq MatS 3011 or instr consent, upper div CSE or grad;  
Instructor: Shores, David A  
Description: Student may contact the instructor or department for information.

MATS 4512 Corrosion and Electrochemistry of Corrosion  
4 credit(s); prereq MatS 3011 or instr consent, upper div CSE or grad;  
Instructor: Shores, David A  
Description: Student may contact the instructor or department for information.

MATS 4591 Independent Study in Materials Science  
OPT No Aud, 1-3 credit(s), max credits 6, 3 completions allowed; prereq Upper div mat sci;  
Instructor: STAFF  
Description: Library, theoretical, laboratory, or design studies of scientific or engineering topics in materials science for an individual student. Course content and credits by arrangement with faculty supervisor. Design credits available if arranged with supervisor. May be used for Upper Division Honors Program experience if arranged with advisor and Honors advisor.

MATS 4593 Directed Study in Materials Science  
A-F only, 1-4 credit(s), max credits 6, 3 completions allowed; prereq upper div MatS;  
Instructor: STAFF  
Description: Directed study under faculty supervision. Student should meet with faculty supervisor before registering to arrange study project, grading option, credits, and final report requirements.

MATS 4594 Directed Research in Materials Science  
OPT No Aud, 1-3 credit(s), max credits 6, 3 completions allowed; prereq Upper div mat sci;  
Instructor: STAFF  
Description: Independent laboratory research under faculty supervision. Student should meet with faculty supervisor before registering to arrange research project, credits, grading option, and final report requirements.

MATS 5353 Electron Microprobe Theory and Practice  
3 credit(s); prereq [One yr chem, one yr physics] or instr consent; Credit will not be granted if credit has been received for: GEO 5353;  
Instructor: Frahm, Ellery Edward  
Description: Student may contact the instructor or department for information.

MATS 8001 Structure and Symmetry of Materials  
A-F only, 3 credit(s);  
Instructor: Frisbie, C Daniel  
Description: Student may contact the instructor or department for information.

MATS 8002 Thermodynamics and Kinetics  
A-F only, 3 credit(s);  
Instructor: Aydil, Eray S  
Description: Student may contact the instructor or department for information.

MATS 8221 Synthetic Polymer Chemistry  
A-F only, 4 credit(s); prereq [Undergrad organic chemistry course, undergrad physical chemistry course] or instr
MATH 1001 Excursions in Mathematics
3 credit(s); prereq 3 yrs high school math or placement exam or [grade of at least C- in PSTL 731 or 732]; Meets CLE req of Mathematical Thinking;
Instructor: Stanley, Terrence
Description: This course is for students who wish to complete precalculus at a pace other than the usual coverage found in a three-year high school mathematics program. This course is equivalent to Math 1031, College Algebra and Probability. It is a prerequisite for Math 1151, and their grade is based on their performance up to the first midterm exam. Contact the department to get a permission number into this class. Students will register to Math 1038 but attend a section of Math 1031 they wish to attend before contacting the department.

MATH 1031 College Algebra and Probability
3 credit(s); prereq 3 yrs high school math or satisfactory score on placement test or grade of at least C- in [PSTL 731 or PSTL 732] Credit will not be granted if credit has been received for: 1051, 1151, 1155; Credit will not be granted if credit has been received for: MATH 1155; Meets CLE req of Mathematical Thinking;
Instructor: STAFF
Description: Overview: Linear and quadratic equations and inequalities; graphs of equations, including lines, circles, parabolas, composition, inverses of functions; transformations of graphs; linear, quadratic models; polynomials; exponentials; logarithms; counting; probability. Audience: Business majors wanting to take Math 1142 and elementary education majors wanting to take Math 3113. Also works as prerequisite for Math 1151. Satisfies the CLE Mathematical Thinking requirement.

MATH 1031 College Algebra and Probability Submodule
1-12 credit(s), max credits 12, 1 completion allowed;
Instructor: Frisbie, C Daniel
Description: Student may contact the instructor or department for information.

MATH 1038 College Algebra and Probability Submodule
1-12 credit(s), max credits 12, 1 completion allowed;
Instructor: Frisbie, C Daniel
Description: Meets CLE req of Mathematical Thinking; Instructor: STAFF
Description: This course assumes that students have a good working knowledge of high school algebra. This course is equivalent to Math 1031, College Algebra and Probability. It is a prerequisite for Math 1151, and their grade is based on their performance up to the first midterm exam. Contact the department to get a permission number into this class. Students will register to Math 1038 but attend a section of Math 1031 they wish to attend before contacting the department.

MATH 1051 Precalculus I
3 credit(s); prereq 3 yrs of high school math or satisfactory score on placement test or grade of at least C- in [PSTL 731 or PSTL 732] Credit will not be granted if credit has been received for: 1031, 1151, 1155; Credit will not be granted if credit has been received for: MATH 1155; Meets CLE req of Mathematical Thinking;
Instructor: STAFF
Description: Intended for students who have already had the equivalent of Math 1051 and need the Probability and Counting component of Math 1031. Students take the first part of Math 1031, and their grade is based on their performance up to the midterm exam. Contact the department to get a permission number into this class. Students will register to Math 1038 but attend a section of Math 1031 they wish to attend before contacting the department.
MATH 1142 Short Calculus  
4 credit(s); prerequisite Satisfactory score on placement test or grade of at least C- in [1031 or 1051]; Credit will not be granted if credit has been received for: MATH 1271; Meets CLE req of Mathematical Thinking;  
Instructor: STAFF  
Description: Overview: A one-semester tour of differential and integral calculus in one variable, and differential calculus in two variables. Does not involve any trigonometry. Emphasis on formulas and their interpretation and use in applications. Audience: Business, architecture, and agricultural science majors, and students who want some exposure to calculus. Does not serve as a prerequisite to any higher math course, but does satisfy the CLE Mathematical Thinking requirement.

MATH 1142 Short Calculus  
4 credit(s); prerequisite Satisfactory score on placement test or grade of at least C- in [1031 or 1051]; Credit will not be granted if credit has been received for: MATH 1271; Meets CLE req of Mathematical Thinking;  
Instructor: Corbett, John  
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. This course is designed for people who need only a brief introduction to calculus. Its purpose is to teach you the elements of differential and integral calculus, with an emphasis on business, economics, and the social sciences. This course requires proficiency in algebra. Knowledge of trigonometry is not needed. You will be introduced to the ideas of limits of functions at particular points and continuity of functions. These concepts lead to the definitions of derivative and differentiation. You will learn how to differentiate polynomial, rational, exponential, and logarithmic functions. After you master differentiation techniques, you will learn integration of certain functions.  
Style: This is a printed correspondence section.  
Grading: 40% mid exam, 40% final exam, 20% written homework.  
Exam Format: Supervised, in-person (not online) exams

MATH 1151 Precalculus II  
3 credit(s); prerequisite Satisfactory score on placement exam or grade of at least C- in [1031 or 1051] Credit will not be granted if credit has been received for: Math1155; Credit will not be granted if credit has been received for: MATH 1155; Meets CLE req of Mathematical Thinking;  
Instructor: STAFF  
Description: Overview: Trigonometric functions and inverse trigonometric functions; definitions, graphs, identities, applications; real and complex zeros of polynomials; polar coordinates; DeMoivre’s Theorem; conic sections; solutions of linear systems by substitution and elimination; systems of nonlinear equations and systems of inequalities; arithmetic sequences and geometric series. Audience: Students from Math 1051 or Math 1031 and those that need a little refresher course before going on to calculus, often because of the trig. Satisfies the prerequisite for Math 1271 or Math 1371 and also satisfies the CLE Mathematical Thinking requirement.

MATH 1151 Precalculus II  
3 credit(s); prerequisite Satisfactory score on placement exam or grade of at least C- in [1031 or 1051] Credit will not be granted if credit has been received for: Math1155; Credit will not be granted if credit has been received for: MATH 1155; Meets CLE req of Mathematical Thinking;  
Instructor: Kinney, Donald Patrick  
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. This is a course in algebra, analytic geometry, and trigonometry beyond the usual coverage found in a four-year high school mathematics program. In many places in the course, concepts are developed that will feed into calculus. Depending on your needs, this course can serve as a terminal course in mathematics or as a precursor to higher mathematics. It is designed to prepare students for the full calculus sequence.  
Style: This is a printed, correspondence section.  
Grading: 40% mid exam, 40% final exam, 20% written homework.  
Exam Format: Supervised, in-person exams

MATH 1155 Intensive Precalculus  
5 credit(s); prerequisite Satisfactory score on placement exam or grade of at least C- in [PSTL 731 or PSTL 732] Credit will not be granted if credit has been received for: Math1031, 1051, 1151; Credit will not be granted if credit has been received for: MATH 1031; Meets CLE req of Mathematical Thinking;  
Instructor: Rejto, Peter A  
Description: Student may contact the instructor or department for information.

MATH 1161 Statistics, Bioinformatics, and Discrete Mathematics  
A-F only, 3 credit(s); prerequisite Three yrs high school math or placement exam Only Rochester-admitted students will be able to enroll in this course.; Meets CLE req of Mathematical Thinking Core;  
Instructor: Huq, Aminul  
Description: Student may contact the instructor or department for information.

MATH 1161 Statistics, Bioinformatics, and Discrete Mathematics  
A-F only, 3 credit(s); prerequisite Three yrs high school math or placement exam Only Rochester-admitted students will be able to enroll in this course.; Meets CLE req of Mathematical Thinking Core;  
Instructor: Wei, Wei  
Description: Student may contact the instructor or department for information.

MATH 1171 Calculus, Modeling, and Data I  
A-F only, 3 credit(s); prerequisite Grade of at least C- in 1161 or placement exam; Meets CLE req of Mathematical Thinking Core;  
Instructor: Huq, Aminul  
Description: Student may contact the instructor or department for information.

MATH 1271 Calculus I  
4 credit(s); prerequisite Satisfactory score on placement test or grade of at least C- in [1151 or 1155]; Credit will not be granted if credit has been received for: MATH 1142; Meets CLE req of Mathematical Thinking;  
Instructor: STAFF  
Description: Overview: Tangent lines; limits and continuity; differentiation: definition, basic rules, chain rule, rules for trig, exp and log functions; implicit differentiation; rates of change, max-min, related rates problems; 2nd derivative test; curve sketching; linear approximation and differentials; L’Hospital’s rule; integration: definition, antidifferentiation, area; simple substitution; volumes of solids by cross sections and shells; work; average value of a function. Audience: The beginning of the standard course for students outside of IT. Also taken by IT students who need to start calculus in the middle of year. Students desiring only one semester of calculus should take Math 1142.  
Grading: A-F only, 3 credit(s); prerequisite Three yrs high school math or placement exam Only Rochester-admitted students will be able to enroll in this course.; Meets CLE req of Mathematical Thinking Core;  
Instructor: Rejto, Peter A  
Description: Student may contact the instructor or department for information.  
Exam Format: Supervised, in-person exams
been received for: MATH 1142; Meets CLE req of Mathematical Thinking;
Instructor: Corbett, John
Description: This course is a printed distance learning section
(known as a correspondence course) offered through Online and
Distance Learning, College of Continuing Education. You will
work independently, not as part of a student group. Visit "Class
URL" for ODL policies, including fee and financial aid restrictions.
In this course you will study one of the central concepts of
calculus, the derivative of a function, the most important of which
is lines tangent to curves. We will develop formulas that make
calculating the derivative of a function relatively straightforward.
You will study derivatives of the six trigonometric functions: sine,
cosine, secant, cosecant, tangent, and cotangent as well as use
the powerful chain rule for finding the derivatives of composite
functions. You will study the mean value theorem, which is of
great importance in theoretical mathematics, and its application
to increasing and decreasing functions and to the maxima and
minima of functions. In addition, you will find the derivatives of
higher orders - especially the second order - that are useful in
discussing concavity and the points of inflection of a graph of a
given function. You will also study basic integrals and their
applications.
Style: Printed correspondence
Grading: 40% mid exam, 40% final exam, 20% written
homework.
Exam Format: Supervised, in-person exams

MATH 1272 Calculus II
4 credit(s); prereq [1271 or equiv] with grade of at least C-
Credit will not be granted if credit has been received for:
MATH 1372;
Instructor: STAFF
Description: Overview: Techniques of integration, including
integration by parts, simple trig substitutions, partial fractions.
Basic numerical integration; improper integrals; arc length; area
of surface of revolution. Separable differential equations, Euler's
method, exponential growth and decay. Parametric curves and
polar coordinates. Review of conic sections. Sequences and
series, comparison and ratio tests, Taylor series and
polynomials. Vectors in three dimensions, dot product, cross
product, lines, planes, cylinders, quadric surfaces; cylindrical and
spherical coordinates. Audience: Part of the standard calculus
course for students outside of IT.

MATH 1272 Calculus II
4 credit(s); prereq [1271 or equiv] with grade of at least C-
Credit will not be granted if credit has been received for:
MATH 1372;
Instructor: Hewitt, Harlan A
Description: This course is a printed distance learning section
(known as a correspondence course) offered through Online and
Distance Learning, College of Continuing Education. You work
independently, not as part of a student group. Visit "Class
URL" for ODL policies, including fee and financial aid restrictions.
In this course you will study techniques of integration and more
applications of integrations. In addition, you will explore the
parametric equations of curves and use this system to study
more applications of integrals. You will also continue to study
dependent coordinates. And, you will study some sequences and
series. The last major topic of this course is coordinate geometry
in three dimensions, which is an introduction to the study of
multivariable calculus.
Style: This is a printed, correspondence section.
Grading: 40% mid exam, 40% final exam, 20% written
homework.
Exam Format: Supervised, in-person exams

MATH 1371 CSE Calculus I
4 credit(s); prereq CSE, background in [precalculus,
geometry, visualization of functions/graphs], instr consent
familiarity with graphing calculators recommended; Credit
will not be granted if credit has been received for:
MATH 1142;
Instructor: Miracle, Chester L
Description: Student may contact the instructor or department
for information.

MATH 1371 CSE Calculus I
4 credit(s); prereq CSE, background in [precalculus,
geometry, visualization of functions/graphs], instr consent
familiarity with graphing calculators recommended; Credit
will not be granted if credit has been received for:
MATH 1142;
Instructor: Bao, Shi Ting
Description: Student may contact the instructor or department
for information.

MATH 1372 CSE Calculus II
4 credit(s); prereq Grade of at least C- in [1371 or equiv],
CSE or pre-Bioprod/Biosys Engr; Credit will not be granted
if credit has been received for:
MATH 1272;
Instructor: Schmitz, Rebecca
Description: Student may contact the instructor or department
for information.

MATH 1372 CSE Calculus II
4 credit(s); prereq Grade of at least C- in [1371 or equiv],
CSE or pre-Bioprod/Biosys Engr; Credit will not be granted
if credit has been received for:
MATH 1272;
Instructor: Sukiennik, Justin Edward
Description: Student may contact the instructor or department
for information.

MATH 1571 HONORS CALCULUS I
4 credit(s); prereq Honors student and permission of
University Honors Program; Credit will not be granted if
credit has been received for:
MATH 1142;
Instructor: Prikey, Karel L
Description: Student may contact the instructor or department
for information.

MATH 2243 Linear Algebra and Differential Equations
4 credit(s); prereq [1272 or 1282 or 1372 or 1572] w/grade of
at least C-; Credit will not be granted if credit has been received for:
MATH 2373;
Instructor: STAFF
Description: Overview: The course is divided into two
somewhat related parts. Linear algebra: matrices and matrix
operations, Gaussian elimination, matrix inverses, determinants,
vector spaces and subspaces, dependence, Wronskian,
dimension, eigenvalues, eigenvectors, diagonalization. ODE:
Separable and first-order linear equations with applications, 2nd
order linear equations with constant coefficients, method of
undetermined coefficients, simple harmonic motion, 2x2 and 3x3
systems of linear ODE's with constant coefficients, solution by
eigenvalue/eigenvectors, nonhomogeneous linear systems; plane
plane analysis of 2x2 nonlinear systems near equilibria.
Audience: Part of the standard 2nd year calculus course for
students outside of IT.

MATH 2243 Linear Algebra and Differential Equations
4 credit(s); prereq [1272 or 1282 or 1372 or 1572] w/grade of
at least C-; Credit will not be granted if credit has been received for:
MATH 2373;
Instructor: Hewitt, Harlan A
Description: This course is a printed distance learning section
(known as a correspondence course) offered through Online and
Distance Learning, College of Continuing Education. You work
independently, not as part of a student group. Visit "Class
URL" for ODL policies, including fee and financial aid restrictions.
In this course you will study the concepts of linear algebra and
differential equations. You'll start by examining first-order differential equations and their applications. Then you will study linear algebra with some applications. The last major topic you will study is higher order equations and their application to physics. Before you begin studying the topics of this course, you'll probably find it helpful to review the calculus of one variable.

Style: This is a printed correspondence section.
Grading: 40% mid exam, 40% final exam, 20% written homework. If you take this course S/N, you must earn at least 70% to receive a grade of S.
Exam Format: Supervised, in-person (not online) exams

MATH 2263 Multivariable Calculus
4 credit(s); prereq [1272 or 1372 or 1572] w/grade of at least C-; Credit will not be granted if credit has been received for: MATH 2374;
Instructor: STAFF
Description: Overview: Multivariable calculus: Curves in space, arc length and curvature, velocity and acceleration. Limits and continuity, partial differentiation, local extrema, exact differentials, chain rule, directional derivative and gradient, Lagrange multipliers, 2nd derivative test. Double integration, volume and other applications, polar coordinates, triple integration, cylindrical and spherical coordinates. Vector analysis: Vector fields, line integrals, path independence, Green's Theorem, surface integrals, Theorems of Gauss and Stokes. Audience: Part of the standard 2nd year calculus course for students outside of IT.

MATH 2263 Multivariable Calculus
4 credit(s); prereq [1272 or 1372 or 1572] w/grade of at least C-; Credit will not be granted if credit has been received for: MATH 2374;
Instructor: Hewitt, Harlan A
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. In this course you will study the concepts of multivariable calculus, an extension of differential and integral calculus. You will start by examining partial derivatives and their application to maxima, minima, rate problems, and approximations. Then you will study double and triple integrals and their applications to volume and mass. The last major topic you will study is vector analysis and its application to the work done by a force, flux, and other physical quantities.
Style: This is a printed correspondence section.
Grading: 40% mid exam, 40% final exam, 20% written homework.
Exam Format: Supervised, in-person exams.

MATH 2263 Sequences, Series, and Foundations
3 credit(s); prereq Concurrent registration is required (or allowed) in 2243 or Concurrent registration is required (or allowed) in 2263 or Concurrent registration is required (or allowed) in 2373 or Concurrent registration is required (or allowed) in 2374 w/grade of at least C-; Credit will not be granted if credit has been received for: MATH 3283W;
Instructor: Richter, Wayne H
Description: This is the basic course in linear algebra, with applications. Topics include: linear transformations, matrix calculus, solutions of systems of linear equations, null space, range, rank-nullity theorem, orthogonality, orthogonal projections, fundamental theorem of linear algebra, SDU decompositions, bilinear forms, groups of linear operators. Selected Applications, for example: Gram-Schmidt process, Least-squares approximations, computer graphics and perspective.
Style: 100% Lecture.
Exam Format: problem solving

MATH 2373 CSE Linear Algebra and Differential Equations
4 credit(s); prereq [1272 or 1282 or 1372 or 1572] w/grade of at least C-, CSE or pre-Bio Prod/Biosys Engr; Credit will not be granted if credit has been received for: MATH 2243;
Instructor: Miracle, Chester L
Description: Student may contact the instructor or department for information.

MATH 2373 CSE Linear Algebra and Differential Equations
4 credit(s); prereq [1272 or 1282 or 1372 or 1572] w/grade of at least C-, CSE or pre-Bio Prod/Biosys Engr; Credit will not be granted if credit has been received for: MATH 2243;
Instructor: Guo, Yujin
Description: Student may contact the instructor or department for information.

MATH 2573H Honors Calculus III
4 credit(s); prereq Math 1572H, honors student and permission of University Honors Program; Credit will not be granted if credit has been received for: MATH 2263;
Instructor: Anderson, Greg William
Description: Student may contact the instructor or department for information.

MATH 3113 Topics in Elementary Mathematics I
4 credit(s); prereq Grade of at least C- in [1031 or PSTL 1006] or placement exam;
Instructor: Steen, Beth
Description: Student may contact the instructor or department for information.

MATH 3283W Sequences, Series, and Foundations: Writing Intensive
4 credit(s); prereq [Concurrent registration is required (or allowed) in 2243 or Concurrent registration is required (or allowed) in 2263 or Concurrent registration is required (or allowed) in 2373 or Concurrent registration is required (or allowed) in 2374] w/grade of at least C-; Credit will not be granted if credit has been received for: MATH 2283; Meets CLE req of Writing Intensive;
Instructor: Mosher, Bryan
Description: Student may contact the instructor or department for information.

MATH 3592H Honors Mathematics I
A-F only, 5 credit(s); prereq dept consent; for students with mathematical talent;
Instructor: Webb, Peter Joseph
Description: Student may contact the instructor or department for information.

MATH 4242 Applied Linear Algebra
4 credit(s); prereq 2243 or 2373 or 2573; Credit will not be granted if credit has been received for: MATH 4457;
Instructor: Sell, George R
Description: (Tentative description) This is the basic course in linear algebra, with applications. Topics include: linear transformations, matrix calculus, solutions of systems of linear equations, null space, range, rank-nullity theorem, orthogonality, orthogonal projections, fundamental theorem of linear algebra, SDU decompositions, bilinear forms, groups of linear operators. Selected Applications, for example: Gram-Schmidt process, Least-squares approximations, computer graphics and perspective.
Style: 100% Lecture.
Exam Format: problem solving

MATH 4242 Applied Linear Algebra
4 credit(s); prereq 2243 or 2373 or 2573; Credit will not be granted if credit has been received for: MATH 4457;
Instructor: Jiang, Dihua
Description: Student may contact the instructor or department for information.

MATH 4242 Applied Linear Algebra
4 credit(s); prereq 2243 or 2373 or 2573; Credit will not be granted if credit has been received for: MATH 4457;
Instructor: Chen, Ming
Description: Student may contact the instructor or department for information.
MATH 4512 Differential Equations with Applications
3 credit(s); prereq 2243 or 2373 or 2573;
Instructor: Pogan, Alexandru Alin
Description: Student may contact the instructor or department for information.

MATH 4567 Applied Fourier Analysis
4 credit(s); prereq 2243 or 2373 or 2573;
Instructor: Bobkov, Sergey G
Description: Student may contact the instructor or department for information.

MATH 4603 Advanced Calculus I
4 credit(s); prereq [[2243 or 2373], [2263 or 2374]] or 2574 or instr consent;
Instructor: Fristedt, Bert
Description: Student may contact the instructor or department for information.

MATH 4653 Elementary Probability
4 credit(s); prereq [2263 or 2374 or 2573]; [2283 or 2574 or 3283] recommended;
Instructor: Baxter, John Robert
Description: Student may contact the instructor or department for information.

MATH 4707 Introduction to Combinatorics and Graph Theory
4 credit(s); prereq 2243, [2283 or 3283];
Instructor: White, Dennis E
Description: Student may contact the instructor or department for information.

MATH 4991 Independent Study
1-4 credit(s), max credits 12, 12 completions allowed;
Instructor: Gray, Lawrence F
Description: Student may contact the instructor or department for information.

MATH 4993 Directed Study
1-4 credit(s), max credits 12, 12 completions allowed;
Instructor: Shemyakin, Arkady
Description: Student may contact the instructor or department for information.

MATH 4995 Senior Project for CLA
A-F only, 1 credit(s); prereq 2 sem of upper div math, dept consent;
Instructor: Rejto, Peter A
Description: Student may contact the instructor or department for information.

MATH 4995 Senior Project for CLA
A-F only, 1 credit(s); prereq 2 sem of upper div math, dept consent;
Instructor: Gray, Lawrence F
Description: Student may contact the instructor or department for information.

MATH 4997W Senior project (Writing Intensive)
A-F only, 1 credit(s), max credits 2; prereq 2 sem upper div math, dept consent; Meets CLE req of Writing Intensive;
Instructor: Miller Jr., Willard
Description: Student may contact the instructor or department for information.

MATH 4997W Senior project (Writing Intensive)
A-F only, 1 credit(s), max credits 2; prereq 2 sem upper div math, dept consent; Meets CLE req of Writing Intensive;
Instructor: Fristedt, Bert
Description: Student may contact the instructor or department for information.

MATH 4997W Senior project (Writing Intensive)
A-F only, 1 credit(s), max credits 2; prereq 2 sem upper div math, dept consent; Meets CLE req of Writing Intensive;
Instructor: Baxter, John Robert
Description: Student may contact the instructor or department for information.

MATH 4997W Senior project (Writing Intensive)
A-F only, 1 credit(s), max credits 2; prereq 2 sem upper div math, dept consent; Meets CLE req of Writing Intensive;
Instructor: Gray, Lawrence F
Description: Student may contact the instructor or department for information.

MATH 5075 Mathematics of Options, Futures, and Derivative Securities I
4 credit(s); prereq Two yrs calculus, basic computer skills;
Instructor: Shemyakin, Arkady
Description: Student may contact the instructor or department for information.

MATH 5165 Mathematical Logic I
4 credit(s); prereq 2283 or 3283 or Phil 5201 or CSci course in theory of algorithms or instr consent; Credit will not be granted if credit has been received for: MATH 4152;
Instructor: Richter, Wayne H
Description: See the web site for Professor Richter at http://www.math.umn.edu/~richter/

MATH 5248 Cryptology and Number Theory
4 credit(s); prereq 2 sems soph math;
Instructor: Stanton, Dennis W
Description: Student may contact the instructor or department for information.

MATH 5248 Cryptology and Number Theory
4 credit(s); prereq 2 sems soph math;
Instructor: Odlyzko, Andrew
Description: Student may contact the instructor or department for information.

MATH 5251 Error-Correcting Codes, Finite Fields, Algebraic Curves
4 credit(s); prereq 2 sems soph math;
Instructor: Odlyzko, Andrew
Description: How can music CDs that have been scratched still produce perfect music? How do spacecraft orbit Saturn communicate with Earth? And how do high quality movies fit on DCDs? All these depend on some pretty mathematics that is not too complicated and can be learned with minimal prerequisites, given the willingness to pick up some abstract algebraic, combinatorial, and probabilistic concepts. Detailed information from an earlier version of the course, taught by another instructor, is available at http://www.math.umn.edu/~garrett/coding/ The Spring 2009 class will be very similar.

MATH 5335 Geometry I
MATH 5345 Introduction to Topology
4 credit(s); prereq [2243 or 2373 or 2573], [concurrent enrollment 2263 or concurrent enrollment 2374 or concurrent enrollment 2574];
Instructor: Rogness, Jonathan Peter
Description: Student may contact the instructor or department for information.

MATH 5485 Introduction to Numerical Methods I
4 credit(s); prereq [2243 or 2373 or 2573], [concurrent enrollment 2263 or concurrent enrollment 2374 or concurrent enrollment 3283];
Instructor: Guo, Ren
Description: Student may contact the instructor or department for information.

MATH 5535 Dynamical Systems and Chaos
4 credit(s); prereq [2243 or 2373 or 2573], [2263 or 2374 or 2574];
Instructor: Chen, Ming
Description: Student may contact the instructor or department for information.

MATH 5583 Complex Analysis
4 credit(s); prereq 2 sems soph math [including [2263 or 2374 or 2573], [2283 or 3283]] recommended;
Instructor: Bobkov, Sergey G
Description: Student may contact the instructor or department for information.

MATH 5615H Honors: Introduction to Analysis I
4 credit(s); prereq [[2243 or 2373], [2263 or 2374], [2283 or 3283]] or 2574;
Instructor: Conn, Jack Frederi
Description: Student may contact the instructor or department for information.

MATH 5615H Honors: Introduction to Analysis I
4 credit(s); prereq [[2243 or 2373], [2263 or 2374], [2283 or 3283]] or 2574;
Instructor: Polacik, Peter
Description: Student may contact the instructor or department for information.

MATH 5611 Basic Theory of Probability and Statistics
4 credit(s); prereq [2263 or 2374 or 2573], [2243 or 2373]; [2283 or 2574 or 3283] recommended; Credit will not be granted if credit has been received for: Stat 4101, Stat 5101.;
Instructor: Frank, David L
Description: Student may contact the instructor or department for information.

MATH 5651 Basic Theory of Probability and Statistics
4 credit(s); prereq [2263 or 2374 or 2573], [2243 or 2373]; [2283 or 2574 or 3283] recommended; Credit will not be granted if credit has been received for: Stat 4101, Stat 5101.;
Instructor: Reiner, Victor Schorr
Description: Student may contact the instructor or department for information.

MATH 5652 Introduction to Stochastic Processes
4 credit(s); prereq 5651 or Stat 5101;
Instructor: Gray, Lawrence F
Description: Student may contact the instructor or department for information.

MATH 5705 Enumerative Combinatorics
4 credit(s); prereq [2243 or 2373 or 2573], [2263 or 2283 or 2374 or 2574 or 3283];
Instructor: Kim, Jang Soo
Description: Student may contact the instructor or department for information.

MATH 8201 General Algebra
A-F only, 3 credit(s); prereq 4xxx algebra or equiv or instr consent;
Instructor: Reiner, Victor Schorr
Description: Student may contact the instructor or department for information.

MATH 8201 General Algebra
A-F only, 3 credit(s); prereq 4xxx algebra or equiv or instr consent;
Instructor: Reiner, Victor Schorr
Description: Student may contact the instructor or department for information.

MATH 8207 Theory of Modular Forms and L-Functions
A-F only, 3 credit(s); prereq 8202 or instr consent;
Instructor: Garrett, Paul B
Description: Student may contact the instructor or department for information.

MATH 8207 Theory of Modular Forms and L-Functions
A-F only, 3 credit(s); prereq 8202 or instr consent;
Instructor: Garrett, Paul B
Description: Student may contact the instructor or department for information.

MATH 8245 Group Theory
A-F only, 3 credit(s); prereq 8202 or instr consent;
Instructor: Webb, Peter Joseph
Description: Student may contact the instructor or department for information.

MATH 8253 Algebraic Geometry
A-F only, 3 credit(s); prereq 8202 or instr consent;
Instructor: Li, PhD, Tian-Jun
Description: Student may contact the instructor or department for information.

MATH 8271 Lie Groups and Lie Algebras
A-F only, 3 credit(s); prereq 8302 or instr consent;
Instructor: Cooper, Bobbe J
Description: Student may contact the instructor or department for information.

MATH 8301 Manifolds and Topology
A-F only, 3 credit(s); prereq [Some point-set topology, algebra] or instr consent;
Instructor: Sperber, Steven I
Description: Student may contact the instructor or department for information.

MATH 8301 Manifolds and Topology
A-F only, 3 credit(s); prereq [Some point-set topology, algebra] or instr consent;
Instructor: Sperber, Steven I
Description: Student may contact the instructor or department for information.

MATH 8306 Algebraic Topology
A-F only, 3 credit(s); prereq 8301 or instr consent;
Instructor: Akhmedov, Anar
Description: Student may contact the instructor or department for information.

MATH 8365 Riemannian Geometry
A-F only, 3 credit(s); prereq 8301 or basic point-set topology or instr consent;
Instructor: Gulliver II, Robert D
Description: Student may contact the instructor or department for information.
MATH 8370 Topics in Differential Geometry  
A-F only, 1-3 credit(s), max credits 12, 12 completions allowed; prereq 5301 or 8365; offered for one yr or one sem as circumstances warrant;  
Instructor: Wang, Jiaping  
Description: Student may contact the instructor or department for information.

MATH 8401 Mathematical Modeling and Methods of Applied Mathematics  
A-F only, 3 credit(s); prereq 4xxx numerical analysis and applied linear algebra or instr consent;  
Instructor: Mori, Yoichiro  
Description: Student may contact the instructor or department for information.

MATH 8441 Numerical Analysis and Scientific Computing  
3 credit(s); prereq [4xxx analysis, 4xxx applied linear algebra] or #;  
Instructor: Luakin, Mitchell B  
Description: Student may contact the instructor or department for information.

MATH 8441 Numerical Analysis and Scientific Computing  
3 credit(s); prereq [4xxx analysis, 4xxx applied linear algebra] or #;  
Instructor: Luakin, Mitchell B  
Description: Student may contact the instructor or department for information.

MATH 8501 Theory of Ordinary Differential Equations  
A-F only, 3 credit(s); prereq 4xxx ODE or instr consent;  
Instructor: Moeckel, Richard B  
Description: Student may contact the instructor or department for information.

MATH 8571 Theory of Evolutionary Equations  
A-F only, 3 credit(s); prereq 8502 or instr consent;  
Instructor: Scheel, Arnd  
Description: Student may contact the instructor or department for information.

MATH 8583 Theory of Partial Differential Equations  
A-F only, 3 credit(s); prereq [Some 5xxx PDE, 8601] or instr consent;  
Instructor: Sverak, Vladimir  
Description: Student may contact the instructor or department for information.

MATH 8583 Theory of Partial Differential Equations  
A-F only, 3 credit(s); prereq [Some 5xxx PDE, 8601] or instr consent;  
Instructor: Sverak, Vladimir  
Description: Student may contact the instructor or department for information.

MATH 8590 Topics in Partial Differential Equations  
A-F only, 1-3 credit(s), max credits 3, 1 completion allowed; prereq 8502; offered for one yr or one sem as circumstances warrant;  
Instructor: Ni, Wei-Ming  
Description: Student may contact the instructor or department for information.

MATH 8601 Real Analysis  
A-F only, 3 credit(s); prereq 5616 or instr consent;  
Instructor: Safonov, Mikhail V  
Description: Student may contact the instructor or department for information.

MATH 8601 Real Analysis  
A-F only, 3 credit(s); prereq 5616 or instr consent;  
Instructor: Safonov, Mikhail V  
Description: Student may contact the instructor or department for information.

MATH 8651 Theory of Probability Including Measure Theory  
3 credit(s); prereq 5616 or instr consent;  
Instructor: Bramson, Maury Daniel  
Description: Student may contact the instructor or department for information.

MATH 8659 Stochastic Processes  
3 credit(s); prereq 8652 or instr consent;  
Instructor: Krylov, Nicolai Vladimirovich  
Description: Student may contact the instructor or department for information.

MATH 8680 Topics in Combinatorics  
A-F only, 1-3 credit(s), max credits 12, 12 completions allowed; prereq Grad math major or #; offered as one yr or one sem crse as circumstances warrant;  
Instructor: Pylyavskyy, Pavlo  
Description: Student may contact the instructor or department for information.

MATH 8701 Complex Analysis  
A-F only, 3 credit(s); prereq 5616 or instr consent;  
Instructor: Hejhal, Dennis A  
Description: Student may contact the instructor or department for information.

MATH 8801 Functional Analysis  
A-F only, 3 credit(s); prereq 8602 or instr consent;  
Instructor: Polacik, Peter  
Description: Student may contact the instructor or department for information.

MATH 8801 Functional Analysis  
A-F only, 3 credit(s); prereq 8602 or instr consent;  
Instructor: Polacik, Peter  
Description: Student may contact the instructor or department for information.

MATH 8991 Independent Study  
S-N only, 1-6 credit(s), max credits 24, 4 completions allowed; prereq instr consent;  
Instructor: Calderer, Carme  
Description: Student may contact the instructor or department for information.

Mathematics Education  
145 Peik Hall

MTHE 3101 Mathematics and Pedagogy for Elementary Teachers I  
A-F only, 4 credit(s); prereq [College algebra, elementary FOE student] or instr consent;  
Instructor: Cramer, Kathleen Ann  
Description: Math content knowledge of K-6 in an environment modeling pedagogy for future implementation. Integrated content/methods. Problem solving, connections, communication, reasoning, representation. Functions, proportionality, number, numeration.

MTHE 3101 Mathematics and Pedagogy for Elementary Teachers I  
A-F only, 4 credit(s); prereq [College algebra, elementary FOE student] or instr consent;  
Instructor: Monson, Debra Sue  
Description: Math content knowledge of K-6 in an environment modeling pedagogy for future implementation. Integrated content/methods. Problem solving, connections, communication, reasoning, representation. Functions, proportionality, number, numeration.
MTHE 3102 Mathematics and Pedagogy for Elementary Teachers II
A-F only, 4 credit(s); prereq 3101, college algebra;  
Instructor: Wyberg, Terrence R  
Description: Math content knowledge of K-6 in an environment modeling pedagogy for future implementation. Integrated content/methods. Problem solving, connections, communication, reasoning, representation. Functions, proportionality, number, numeration.

MTHE 5021 Algebraic Structures in School Mathematics
3 credit(s); prereq Tchg exper or instr consent;  
Instructor: Wyberg, Terrence R  
Description: Pedagogy, content, and instructional strategies for teaching arithmetic. Content and issues relevant to the algebra curriculum. Instructional materials and technology appropriate for arithmetic. Each offering of the course will focus on either elementary/middle or middle/secondary grade levels.

MTHE 5100 Topics in Mathematics Education
3 credit(s), max credits 12; 12 completions allowed; prereq Ed or grad student;  
Instructor: Moore, Tamara J.  
Description: Student may contact the instructor or department for information.

MTHE 5305 Middle School Mathematics Methods
A-F only, 2 credit(s); prereq Elem ed licensure student;  
Instructor: Wyberg, Terrence R  
Description: The unique needs of middle school students in the mathematics classroom. Mathematics content and pedagogical skills. Adolescent development/psychology. Field placement in a middle school mathematics classroom.

MTHE 5314 Teaching and Learning Mathematics
3 credit(s); prereq Math Ed or MEd or Cl MEd or grad student or instr consent;  
Instructor: Clarkson, Lesa M  

MTHE 5355 Mathematics for Diverse Learners
3 credit(s); prereq Teaching license or student in elem ed or special ed or instr consent;  
Instructor: Clarkson, Lesa M  
Description: Student may contact the instructor or department for information.

MTHE 5596 Student Teaching in Mathematics
S-N only, 1-8 credit(s), max credits 8, 1 completion allowed; prereq MEd or initial licensure student or instr consent;  
Instructor: STAFF  
Description: Student teaching in secondary mathematics classes.

MTHE 5993 Directed Studies in Mathematics Education
S-N only, 2 credit(s), max credits 3, 1 completion allowed; prereq Math ed MEd student, instr consent;  
Instructor: STAFF  
Description: Secondary school classroom teaching project designed to improve specific teaching skills, planned by student and approved and directed by student's adviser as part of MthE program.

MTHE 8571 Research in Mathematics Education
3 credit(s); prereq 5313, 6501;  
Instructor: Cramer, Kathleen Ann  
Description: Student may contact the instructor or department for information.

ME 2011 Introduction to Engineering
A-F only, 4 credit(s); prereq CSE lower div;  
Instructor: Durfee, William K  
Description: Visit the course web site for a complete description.

ME 3041 Industrial Assignment I
A-F only, 2 credit(s); prereq ME upper div, enrolled in ME co-op program;  
Instructor: Maple, Virgil A  
Description: (2 cr per sem; prereq upper div ME, regis in ME co-op program; complete co-op sequence 3041, 4042, 4043 for credit req) Industrial work assignment in mechanical engineering co-op program. Evaluation based on student's formal report covering the quarter's work assignment.  
Style: On the job training  
Grading: 100% reports/papers.

ME 3221 Design and Manufacturing I: Engineering Materials and Manufacturing Processes
A-F only, 4 credit(s); prereq 2011, AEM 3031, MatS 2001, ME upper div;  
Instructor: Klamecki, Barney Eugene  
Description: Student may contact the instructor or department for information.

ME 3221 Design and Manufacturing I: Engineering Materials and Manufacturing Processes
A-F only, 4 credit(s); prereq 2011, AEM 3031, MatS 2001, ME upper div;  
Instructor: Klamecki, Barney Eugene  
Description: Student may contact the instructor or department for information.

ME 3222 Design and Manufacturing II
A-F only, 4 credit(s); prereq [3221 or Concurrent registration is required (or allowed) in 3221], [CSci 1113 or equiv], ME upper div;  
Instructor: Chase, Thomas Richard  
Description: Student may contact the instructor or department for information.

ME 3222 Design and Manufacturing II
A-F only, 4 credit(s); prereq [3221 or Concurrent registration is required (or allowed) in 3221], [CSci 1113 or equiv], ME upper div;  
Instructor: Chase, Thomas Richard  
Description: Student may contact the instructor or department for information.

ME 3221 System Dynamics and Control
A-F only, 4 credit(s); prereq AEM 2021, [Math 2243 or Math 2373], ME upper div;  
Instructor: Dumitraca, Traian  
Description: Student may contact the instructor or department for information.

ME 3324 Introduction to Thermal Science
A-F only, 3 credit(s); prereq Chem 1021, Math 2243, Phys 1301, [CSE student or COAFES pre-BAE major];  
Instructor: Hubel, Allison  
Description: Student may contact the instructor or department for information.
ME 3331 Thermal Sciences I  
A-F only, 3 credit(s); prereq Chem 1021, Phys 1301, CSE student;  
Instructor: Kortshagen, Uwe Richard  
Description: Student may contact the instructor or department for information.

ME 3332 Thermal Sciences II  
A-F only, 3 credit(s); prereq Math 2243, 3331, ME upper div  
credit will not be granted if credit already received for: ME 3322;  
Instructor: Kulacki, Francis A  
Description: Student may contact the instructor or department for information.

ME 3333 Thermal Sciences III  
A-F only, 3 credit(s); prereq 3332, ME upper div credit will  
not be granted if credit already received for: ME 3322;  
Instructor: Davidson, Jane H  
Description: Student may contact the instructor or department for information.

ME 4031W Basic Mechanical Measurements Laboratory  
A-F only, 4 credit(s); prereq [3333 or Concurrent registration is required (or allowed) in 3333], IE 4521, upper div ME;  
Meets CLE req of Writing Intensive;  
Instructor: McMurry, Peter H  
Description: Student may contact the instructor or department for information.

ME 4043W Industrial Assignment II  
A-F only, 4 credit(s); prereq 3041; Meets CLE req of Writing Intensive;  
Instructor: Marple, Virgil A  
Description: Student may contact the instructor or department for information.

ME 4044 Industrial Assignment III  
A-F only, 2 credit(s); prereq ME upper div, registration in ME  
co-op program;  
Instructor: Marple, Virgil A  
Description: Student may contact the instructor or department for information.

ME 4054W Design Projects  
A-F only, 4 credit(s); prereq 2011, 3221, 3222, 3281, 3321,  
3322, 4031W, AEM 2021, AEM 3031, EE 3005; Meets CLE req of Writing Intensive;  
Instructor: Kuehn, Thomas Howard  
Description: Student may contact the instructor or department for information.

ME 4081H Mechanical Engineering Honors Thesis I  
A-F only, 2 credit(s); prereq ME upper div honors student,  
instr consent;  
Instructor: Chase, Thomas Richard  
Description: Student may contact the instructor or department for information.

ME 4131W Thermal Environmental Engineering Laboratory  
A-F only, 4 credit(s); prereq 3322, 4031W, [ME upper div or  
grad student]; Meets CLE req of Writing Intensive;  
Instructor: Kuehn, Thomas Howard  
Description: Student may contact the instructor or department for information.

ME 4231 Motion Control Laboratory  
A-F only, 4 credit(s); prereq 3281, 4031W, ME upper div;  
Instructor: Rajamani, Rajesh  
Description: Student may contact the instructor or department for information.

ME 4232 Fluid Power Control Lab  
A-F only, 4 credit(s); prereq 3281, 4031W, ME upper div;  
Instructor: Li, Perry Y  
Description: This course's objectives are: 1) Introduce fluid power component, circuits, and systems 2) Provide hands on experience in design, analysis and implementation of control systems for real and physical systems; 3) Provide first hand experience in modeling, control and other dynamic systems concepts, such as in ME 3281. Students will design, build and study hydraulic circuits in the first half of the semester, and design, analyze and implement controllers of different sophistications for electrohydraulic systems in the second half. There will be extensive use of Matlab/Simulink in analysis, implementation and design. This course emphasizes laboratory experience and making connections between physical systems and mathematical models.  
Style: 33% Lecture, 66% Laboratory.  
Exam Format: There will be one oral final exam

ME 4233 Vibration Engineering Laboratory  
A-F only, 4 credit(s); prereq 3281, 4031W, ME upper div;  
Instructor: Kelso, Frank M  
Description: Student may contact the instructor or department for information.

ME 4331 Thermal Engineering Laboratory  
A-F only, 4 credit(s); prereq [3321, 3322, 4031W], [CSE upper div or grad student];  
Instructor: Goldstein, Richard J  
Description: Student may contact the instructor or department for information.

ME 4431W Energy Conversion Systems Laboratory  
A-F only, 4 credit(s); prereq 3333, 4031W, [IT upper div or grad student]; Meets CLE req of Writing Intensive;  
Instructor: Kittelson, David Burrell  
Description: Student may contact the instructor or department for information.

ME 5090 Advanced Engineering Problems  
1-4 credit(s), max credits 4, 1 completion allowed; prereq ME  
upper div, instr consent;  
Instructor: Durfee, William K  
Description: Student may contact the instructor or department for information.

ME 5090 Advanced Engineering Problems  
1-4 credit(s), max credits 4, 1 completion allowed; prereq ME  
upper div, instr consent;  
Instructor: Sparrow, Ephraim M  
Description: Student may contact the instructor or department for information.

ME 5103 Thermal Environmental Engineering  
A-F only, 4 credit(s); prereq CSE upper div or grad, 3322 or  
3323;  
Instructor: Ramsey, James W  
Description: Student may contact the instructor or department for information.

ME 5113 Aerosol/Particle Engineering  
A-F only, 4 credit(s); prereq CSE upper div or grad student;  
Instructor: Pui, David Y  
Description: Student may contact the instructor or department for information.
ME 5211 Human Factors and Work Analysis
A-F only, 4 credit(s); Credit will not be granted if credit has been received for: IE 5511;
Instructor: Hayes, Caroline Clarke
Description: Student may contact the instructor or department for information.

ME 5228 Introduction to Finite Element Modeling, Analysis, and Design
A-F only, 4 credit(s); prerequisite CSE upper div or grad, 3221, AEM 3031, CSci 1113, MatS 2001;
Instructor: Tamman, Kumar K
Description: Student may contact the instructor or department for information.

ME 5241 Computer-Aided Engineering
A-F only, 4 credit(s); prerequisite CSE upper div or grad, 3222, CSci 1113 or equiv;
Instructor: Kelso, Frank M
Description: Student may contact the instructor or department for information.

ME 5281 Analog and Digital Control
4 credit(s); prerequisite 3281;
Instructor: Rajamani, Rajesh
Description: Student may contact the instructor or department for information.

ME 5341 Case Studies in Thermal Engineering and Design
A-F only, 4 credit(s); prerequisite CSE upper div or grad student, 3321, 3322;
Instructor: Sparrow, Ephraim M
Description: This course may be the most useful among those offered in mechanical engineering. Real-world engineering problems are brought into the classroom. To solve problems of such real complexity, powerful computational tools are taught. These include ANSYS thermal (heat conduction), ANSYS structural and thermal stresses. The main part of the course is computational fluid dynamics (CFD). For this, CFX software is taught. These software codes are applied to numerous real-world problems. No prior experience with software is needed. No exams or quizzes. No textbook. Two projects. One-on-one computer lab help is available.

ME 5344 Thermodynamics of Fluid Flow with Applications
A-F only, 4 credit(s); prerequisite CSE upper div or grad student, 3321, 3322;
Instructor: Sparrow, Ephraim M
Description: Student may contact the instructor or department for information.

ME 5462 Gas Turbines
A-F only, 4 credit(s); prerequisite CSE upper div or grad student, 3321, Concurrent registration is required (or allowed) in 3322;
Instructor: Simon, Terrence W
Description: Student may contact the instructor or department for information.

ME 5666 Modern Thermodynamics
A-F only, 4 credit(s); prerequisite 3331 or equiv;
Instructor: Aksan, Alptekin
Description: ME 5666 Modern Thermodynamics: Bio-NanoThermodynamics This course focuses on applications of thermodynamic principles to biology and nanotechnology. It is designed as a two-instructor course to re-introduce the science of Thermodynamics and combine it with engineering modeling. The topics to be covered in the course include: Molecular Thermodynamics, Relations between Microscopic and Macroscopic Properties, Thermodynamic Constraints and Ensembles, Computational Tools at Thermodynamic Equilibrium, Chemical Thermodynamics, Irreversible and Non-equilibrium Thermodynamics, Thermodynamic Optimization, Thermodynamics in Nature, and Biothermodynamics. The students will be divided into groups of 4-5. Each group will be assigned a project, which requires application of the thermodynamic modeling skills taught in the course. The course will include 3 hour/week classroom instruction and 1 hour/week discussion.
Style: 75% Lecture, 20% Small Group Activities, 5% Student Presentation.
Grading: 50% mid exam, 50% reports/papers.

ME 8113 Advanced Aerosol/Particle Engineering
A-F only, 3 credit(s); prerequisite CSE grad student or instructor consent;
Instructor: Hogan, Chris
Description: Student may contact the instructor or department for information.

ME 8221 New Product Design and Business Development I
A-F only, 4 credit(s); prerequisite CSE grad student, some design experience; Credit will not be granted if credit has been received for: ENTR 6087;
Instructor: Durfee, William K
Description: See the course web site for a complete description.

ME 8254 Fundamentals of Microelectromechanical Systems (MEMS)
A-F only, 4 credit(s);
Instructor: Cui, Tianhong
Description: Student may contact the instructor or department for information.

ME 8287 Topics in Dynamics and Control: Design and Control of Automotive Powertrain
A-F only, 4 credit(s), max credits 12, 3 completions allowed; prerequisite 5281;
Instructor: Sun, Zongxuan
Description: Student may contact the instructor or department for information.

ME 8341 Conduction
A-F only, 3 credit(s); prerequisite Undergrad class in heat transfer or instructor consent;
Instructor: Bischof, John C
Description: Student may contact the instructor or department for information.

ME 8343 Radiation
A-F only, 3 credit(s); prerequisite Undergrad class in heat transfer or instructor consent;
Instructor: Lipinski, Wojciech
Style: 67% Lecture. 33% Discussion.
Grading: 25% mid exam, 25% final exam, 10% reports/papers, 15% quizzes, 25% written homework.

ME 8361 Molecular Gas Dynamics
A-F only, 3 credit(s); prerequisite CSE grad student; Credit will not be granted if credit has been received for: AEM 8231;
Instructor: Girshick, Steven L
Description: Student may contact the instructor or department for information.

ME 8772 Advanced Transportation Technologies Seminar
S-N only, 1 credit(s); Credit will not be granted if credit has been received for: CE 8213;
Instructor: Donath, Max
Description:
Schedule.
Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class
This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online
University of Minnesota - Course Guide for Twin Cities Campus Fall 2010

MILI 5995 Medical Industry Valuation Laboratory
A-F only, 2 credit(s); prereq instr consent;
Instructor: Nelson,Randall Stephen
Description: Student may contact the instructor or department for information.

MILI 5999 Independent Study
A-F only, 1-8 credit(s), max credits 16;
Instructor: Parente,Stephen T
Description: Student may contact the instructor or department for information.

MILI 6562 Information Technology in Health Care
2 credit(s); prereq MBA student;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

MILI 6990 The Health Care Marketplace
A-F only, 2 credit(s); prereq MBA student;
Instructor: Finch,Michael David
Description: Student may contact the instructor or department for information.

MILI 6995 Medical Industry Valuation Laboratory
OPT No Aud, 2 credit(s), max credits 6, 3 completions allowed; prereq Grad student;
Instructor: STAFF
Description: Interdisciplinary student teams create rapid
production market analysis of promising medical
technologies/services to determine potential for success in
market. Exposure to University innovations, venture firms,
inventors.

MILI 6996 Medical Industry Valuation Laboratory II
OPT No Aud, 2-4 credit(s), max credits 10, 3 completions allowed; prereq Approved application;
Instructor: Nelson,Randall Stephen
Description: Student may contact the instructor or department for information.

MILI 6999 Independent Study
A-F only, 1-8 credit(s), max credits 16;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

MEDC 5245 Introduction to Drug Design
A-F only, 3 credit(s); prereq Chem; Credit will not be granted
if credit has been received for: PHAR 6245;
Instructor: Wagner,Carston R
Description: Concepts that govern design/discovery of drugs.
Physical, bioorganic, medicinal chemical principles applied to
explain rational design, mechanism of action drugs.

MEDC 5700 General Principles of Medicinal Chemistry
A-F only, 2 credit(s); prereq MedC grad student or instr
consent;
Instructor: Xing,Chengguo
Description: Student may contact the instructor or department for information.

MEDC 6100 Medicinal Chemistry Seminar
1 credit(s), max credits 6, 6 completions allowed; prereq
Grad major or instr consent;
Instructor: Abul-Hajj,Yusuf J
Description: Student may contact the instructor or department for information.

MEDC 8800 Medicinal Chemistry Laboratory Techniques
S-N only, 1-2 credit(s), max credits 4, 4 completions allowed;
prereq Grad med chem major or instr consent;
Instructor: Wagner,Carston R
Description: Student may contact the instructor or department for information.

MEDC 8900 Research in Medicinal Chemistry
A-F only, 1-4 credit(s), max credits 8, 8 completions allowed;
prereq Grad med chem major or instr consent;
Instructor: Wagner,Carston R
Description: Student may contact the instructor or department for information.

MEDC 5995 Medical Industry Valuation Laboratory
A-F only, 2 credit(s); prereq CSE grad student;
Instructor: Garrick,Sean Clifford
Description: Student may contact the instructor or department for information.

MEDC 8774 Graduate Seminar
S-N only, 1 credit(s); prereq 8773;
Instructor: Garrick,Sean Clifford
Description: Student may contact the instructor or department for information.

ME 8794 Mechanical Engineering Research
1-6 credit(s), max credits 10, 10 completions allowed; prereq
Instructor: Barocas,Victor Howard
Description: Student may contact the instructor or department for information.

ME 8951 Plan B
A-F only, 3 credit(s);
Instructor: Kortshagen,Uwe Richard
Description: Student may contact the instructor or department for information.

Medical Industry Leadership Institute
4-145 Carlson School of Management

MEST 3610 Topics in Medieval Studies: Literature of Medieval City-States
3 credit(s), max credits 24, 8 completions allowed;
Instructor: Noakes,Susan J
Description: Student may contact the instructor or department for information.

MEST 3610 Topics in Medieval Studies: Medieval Stories
3 credit(s), max credits 24, 8 completions allowed;
Instructor: Noakes,Susan J
Description: (Please note that this class will be taught entirely in
English and is designed for those NOT majoring in French.)
Reading/discussion of major forms of medieval tale written in
France (comic, bawdy, moralizing, fantasy, historical) IN
ENGLISH TRANSLATION. Students will explore the relation of
these tales to development of French and English
(Anglo-Norman) culture, especially urbanization, class relations,
maintenance, role of Church. Texts will be chosen from the following:
THE ARABIAN NIGHTS (one of the source texts for all medieval
European stories); Marie de France, LAIS (stories of knights,
fairies, etc., drawn from Briton sources, rewritten for the
Anglo-Norman court); a collection of "fabliaux," comic verse tales
set in market cities or towns, very influential for Chaucer;
selections from miraculous stories about saints; and perhaps

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
MEST 3610 Topics in Medieval Studies: The Dark Ages Illumined: Medieval Europe to 1050
3 credit(s), max credits 24, 8 completions allowed;
Instructor: Bachrach,Bernard S
Description: Student may contact the instructor or department for information.

MEST 3610 Topics in Medieval Studies: German Civilization and Culture: Middle Ages -1700
3 credit(s), max credits 24, 8 completions allowed;
Instructor: Wakefield,Ray M
Description: This course, with lectures in English, offers an overview of the cultural, political, and social development of the German-speaking countries from the earliest days of contact between the Germanic tribes and the Romans until 1700. Emphasis will be placed on the way in which present-day Germany views its medieval and early modern past, and the role of the Middle Ages, the Reformation, and the Thirty Years War in the creation of a German national identity. Topics to be discussed include myths about the origins of the Germans, the Germanic reshaping of the ancient Roman world, the role of the German Empire in the development of medieval Christianity, the social position of women in medieval and early modern times, medieval and early modern court culture, Reformation and Counter-Reformation debates, Baroque culture in the German Empire. Discussions will involve many types of cultural artifacts, e.g., literary, historical, religious, philosophical texts; paintings, engravings, architecture; medieval and early modern music. Authors to be discussed include Tacitus, Einhard, Hildegard von Bingen, Luther, Grimmelshausen, et al. English discussion sections; question-and-answer sessions in German.

MEST 3610 Topics in Medieval Studies: History of the Crusades
3 credit(s), max credits 24, 8 completions allowed;
Instructor: Reyerson,Kathryn L
Description: This course is designed to introduce undergraduates to European urban forms in the pre-modern era. The political, social, economic, legal, and cultural life of medieval towns, as well as their physical remains, will be explored. The evolution of the town will be traced from the Roman period through the nadir of urban civilization in the Early Middle Ages to the rebirth and flowering of cities in the High and Late Middle Ages. Newly planned towns also figure in our focus. The political, social, economic, legal, and cultural life of medieval towns, as well as their physical remains, will be explored. The evolution of the town will be traced from the Roman period through the nadir of urban civilization in the Early Middle Ages to the rebirth and flowering of cities in the High and Late Middle Ages. Newly planned towns also figure in our focus. The political, social, economic, legal, and cultural life of medieval towns, as well as their physical remains, will be explored. 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MEST 8110 Seminar in Medieval Studies: History of Early Medicine
A-F only, 3 credit(s); max credits 48, 16 completions allowed; prereq Approprirate languages, instr consent ; Instructor: Shackelford,Jole Richard Description: Student may contact the instructor or department for information.

MICB 4111 Microbial Physiology and Diversity
3 credit(s); prereq [2022 or VPB 2022] or BIOL 2032 or VPB 2032 or VBS 2032 or 3301 or BIOL 3301]; [BIOC 3021 or BIOL 3021 or BIOC 4331]; Credit will not be granted if credit has been received for: VPM 4131; Instructor: Jemmerson,Ronald R Description: Molecular, genetic, and cellular bases for humoral and cell-mediated immunity; innate immunity; antigen recognition by B and T lymphocytes; interactions between lymphocytes and other cells of the immune system; cytokines; immunoregulation; key aspects of clinical immunology. Students will learn the basic concepts of immunology with some practical applications. This course is targeted toward undergraduate majors in the biological sciences who have previously been introduced to biology and biochemistry. The material covered in the course will enable those interested to enroll in more advanced courses in this field. See the Course Website for further information.
Style: 90% Lecture, 10% Discussion. Grading: 67% mid exam, 33% final exam. Quizzes can substitute for one of 3 exams
Exam Format: Multiple choice/matching/short answer

MICB 4131 Immunology
3 credit(s); prereq [2022 or VPB 2022] or BIOL 2032 or VPB 2032 or VBS 2032 or 3301 or BIOL 3301]; [BIOC 3021 or BIOL 3021 or BIOC 4331]; Credit will not be granted if credit has been received for: VPM 4131; Instructor: Jemmerson,Ronald R Description: Molecular, genetic, and cellular bases for humoral and cell-mediated immunity; innate immunity; antigen recognition by B and T lymphocytes; interactions between lymphocytes and other cells of the immune system; cytokines; immunoregulation; key aspects of clinical immunology. Students will learn the basic concepts of immunology with some practical applications. This course is targeted toward undergraduate majors in the biological sciences who have previously been introduced to biology and biochemistry. The material covered in the course will enable those interested to enroll in more advanced courses in this field. See the Course Website for further information.
Style: 90% Lecture, 10% Discussion. Grading: 67% mid exam, 33% final exam. Quizzes can substitute for one of 3 exams
Exam Format: Multiple choice/matching/short answer

MICB 4161 Eukaryotic Microbiology
A-F only, 3 credit(s); prereq 3301; [GCD 3022 or BIOL 4003]; Instructor: Davis,Dana Description: Eukaryotic Microbiology covers topics in eukaryotic microbiology that provide insights into the cell biology of higher eukaryotes, animal and plant pathogenesis, and evolution. Model eukaryotic organisms have included: Saccharomyces cerevisiae, Chlamydomonas reinhardtii, Plasmidocapsa falciparum, Toxoplasma gondii, Candida albicans, and Diatoms! The students are the driving force behind this course and are actively encouraged to participate in discussions, give presentations, and critique the scientific interpretations and conclusions of others. Style: 25% Lecture, 30% Discussion, 5% Small Group Activities, 25% Student Presentation, 10% Guest Speakers, 5% Web Based. Grading: 25% mid exam, 25% final exam, 15% reports/papers, 10% written homework, 25% class participation. Exam Format: Essay

MICB 4215 Advanced Laboratory: Microbial Physiology and Diversity
A-F only, 3 credit(s); prereq BIOL 2001 or VBS 2032 or VBS 2032 or intro microbiology course with lab; Instructor: Armstrong,Sandra K Description: Advanced laboratory course consisting of the isolation, cultivation and study of a wide variety of prokaryotes from environmental sources. Experiments to examine certain aspects of bacterial physiology are performed on selected isolates. Independence, analytical thinking and written communication skills are emphasized, as is technical proficiency in microbiology and general laboratory methods.

MICB 4225 Advanced Laboratory: Microbial Genetics
A-F only, 3 credit(s); prereq BIOL 4003; [BIOL 2002 or BIOL 2003 or BIOL 2004 or 3301] recommended; Instructor: Nielsen,Kirsten Description: This course is designed as an introduction to the power of microbial genetics using the baker’s yeast Saccharomyces cerevisiae as a model organism. Although yeasts have greater genetic complexity than bacteria, they still share many of the technical advantages that permit rapid progress in understanding principles of molecular genetics and most methods do not differ significantly from methods employed with other microorganisms. In this course, students will learn basic genetic principles such as isolation of mutants, meiotic mapping, mitotic recombination, and gene replacement through development of specialized cells/structures, altering metabolic patterns. Bacterial genetics and molecular techniques to understand sophisticated metabolic cascades in a diversity of bacteria - from the bottom of the ocean, to the human gut, to Antarctica. The course blends the study of well understood processes along with new metabolic pathways not yet found in text books.

MICB 4225 Advanced Laboratory: Microbial Genetics
A-F only, 3 credit(s); prereq BIOL 4003; [BIOL 2002 or BIOL 2003 or BIOL 2004 or 3301] recommended; Instructor: Nielsen,Kirsten Description: This course is designed as an introduction to the power of microbial genetics using the baker’s yeast Saccharomyces cerevisiae as a model organism. Although yeasts have greater genetic complexity than bacteria, they still share many of the technical advantages that permit rapid progress in understanding principles of molecular genetics and most methods do not differ significantly from methods employed with other microorganisms. In this course, students will learn basic genetic principles such as isolation of mutants, meiotic mapping, mitotic recombination, and gene replacement through development of specialized cells/structures, altering metabolic patterns. Bacterial genetics and molecular techniques to understand sophisticated metabolic cascades in a diversity of bacteria - from the bottom of the ocean, to the human gut, to Antarctica. The course blends the study of well understood processes along with new metabolic pathways not yet found in text books.
hands-on experimentation.

Style: 10% Lecture, 10% Discussion, 80% Laboratory.

Grading: 15% mid exam, 20% final exam, 44% reports/papers, 15% in-class presentation, 8% class participation.

MICA 4994W Directed Research: Writing Intensive
S-N only, 1-7 credit(s), max credits 15, 15 completions allowed; prereq instr consent, dept consent; no more than 7 cr or [4793, 4974, 4993, 4994]; may count toward major requirements; Meets CLE req of Writing Intensive;
Instructor: Geller MD, Melissa A
Description: Student may contact the instructor or department for information.

MICA 4993 Directed Studies
S-N only, 1-6 credit(s), max credits 36, 6 completions allowed; prereq 3301, dept consent;
Instructor: Bey, Russell F
Description: Student may contact the instructor or department for information.

MICA 4994 Directed Research
S-N only, 1-7 credit(s), max credits 7, 1 completion allowed; prereq Biol/MICB 3301, instr consent; 7 cr or max of 4993 and/or 4994 may count toward major requirements;
Instructor: Garry, Daniel Joseph
Description: Student may contact the instructor or department for information.

MICA 5000 Practicum: Teaching
A-F only, 1 credit(s), max credits 4, 4 completions allowed; prereq [MIMP or MICaB] grad major or instr consent;
Instructor: Jemmerson, Ronald R
Description: Student may contact the instructor or department for information.

MICA 8002 Structure, Function, and Genetics of Bacteria and Viruses
A-F only, 4 credit(s); prereq [One undergrad or grad course each in microbiology, genetics, biochemistry] or instr consent;
Instructor: Dunny, Gary M
Description: Student may contact the instructor or department for information.

MICA 8010 Microbial Pathogenesis
A-F only, 3 credit(s); prereq MICa grad student or instr;
Instructor: Southern, Peter
Description: Student may contact the instructor or department for information.

MICA 8011 Current Topics in Immunology
A-F only, 3 credit(s); prereq MICA 8003 or instr consent;
Instructor: Hogquist, Kristin Ann
Description: Student may contact the instructor or department for information.

MICA 8012 Integrated Topics in Microbiology, Immunology, and Cancer Biology
A-F only, 2 credit(s); prereq MICa grad student, completion of two of [8002 or 8003 or 8004];
Instructor: Pennell PhD, Christopher A
Description: Student may contact the instructor or department for information.

MICA 8094 Research in Microbiology, Immunology, and Cancer Biology
S-N only, 1 credit(s), max credits 5, 5 completions allowed; prereq 1st yr MICa grad student;
Instructor: Blazar, Bruce R
Description: Student may contact the instructor or department for information.

MICA 8910 Seminar: Faculty Research Topics
S-N only, 1 credit(s), max credits 10, 10 completions allowed; prereq [MIMP or MICa] grad student or;
Instructor: Pennell PhD, Christopher A
Description: Student may contact the instructor or department for information.

MICA 8920 Seminar: Student Research Topics
S-N only, 1 credit(s), max credits 10, 10 completions allowed; prereq [MIMP or MICa] grad student or instr consent;
Instructor: Pennell PhD, Christopher A
Description: Student may contact the instructor or department for information.

Microbiology, Immunology, and Cancer Biology
1460 Mayo (Box 196 UMHC)

MIL 103 MS I Zero Credit Lead Lab
A-F only, 0 credit(s); prereq Concurrent registration is required (or allowed) in 1101;
Instructor: Leonard, Doug Richard
Description: This is the zero-credit version of the Army ROTC freshman lab. It is only for Army ROTC freshmen who are not UM full-time. Meeting times vary week to week, so you have to talk to the instructor.

MIL 103 MS II Zero Credit Lead Lab
A-F only, 0 credit(s); prereq Concurrent registration is required (or allowed) in 1201;
Instructor: Crawford, Todd Robert
Description: This is the zero-credit version of the Army ROTC freshman lab. It is only for Army ROTC freshmen who are not UM full-time. Meeting times vary week to week, so you have to talk to the instructor.

MIL 203 MS II Zero Credit Lead Lab
A-F only, 0 credit(s); prereq Concurrent registration is required (or allowed) in 3301;
Instructor: Boisen, David J
Description: Student may contact the instructor or department for information.

MIL 303 MS III Zero Credit Lead Lab
A-F only, 0 credit(s); prereq Completion of basic courses, Concurrent registration is required (or allowed) in 3301;
Instructor: Boisen, David J
Description: Student may contact the instructor or department for information.

MIL 403 MS IV Zero Credit Lead Lab
A-F only, 0 credit(s); prereq Completion of basic courses, Concurrent registration is required (or allowed) in 3401;
Instructor: Conway, Michael
Description: Student may contact the instructor or department for information.

MIL 1003 Military Science I Leadership Lab
A-F only, 1 credit(s); prereq Concurrent registration is required (or allowed) in 1201;
Instructor: STAFF
Description: Learn basic skills. Gain insight into the advanced course in order to make an informed decision whether to apply for it. Build self confidence and team building leadership skills that can be applied throughout life.

MIL 1101 Leadership and Personal Development

Military Science
110 Armory

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
A-F only, 1 credit(s);  
Instructor: Leonard, Doug Richard  
Description: Introduction to the Army ROTC Program. Students learn how the U.S. Army is structured, how it operates, and some of the basic Army skills.  
Style: 70% Lecture, 10% Film/Video, 20% Discussion.

**MIL 1201 Innovative Team Leadership**  
A-F only, 2 credit(s); prereq Concurrent registration is required (or allowed) in lab;  
Instructor: Crawford, Todd Robert  
Description: Student may contact the instructor or department for information.

**MIL 1203 MS II One Credit Lead Lab**  
A-F only, 1 credit(s); prereq Concurrent registration is required (or allowed) in 1201;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

**MIL 3301 Adaptive Tactical Leadership**  
A-F only, 3 credit(s); prereq Two yrs of ROTC or equiv established by U.S. Army, must see Army ROTC dept officials; Concurrent registration is required (or allowed) in lab;  
Instructor: Boisen, David J  
Description: MIL 3301 uses increasingly intense situations applying team leadership challenges to build cadet awareness and skills in leading tactical operations at the small unit level. Cadets review aspects of full spectrum operations. They also conduct military briefings and develop proficiency in the operation orders process. The focus is on exploring, evaluating, and developing skills in decision-making, persuading, and motivating team members in the contemporary operating environment. Cadets are evaluated on what they KNOW and DO as leaders as they prepare to attend the ROTC summer Leadership Development and Assessment Course.  
Style: 20% Lecture, 5% Film/Video, 10% Discussion, 30% Laboratory, 20% Small Group Activities, 10% Student Presentation, 5% Demonstration.  
Grading: 10% mid exam, 10% final exam, 5% reports/papers, 25% quizzes, 15% attendance, 10% journal, 10% in-class presentation, 15% other evaluation. Attendance at mandatory physical training

**MIL 3303 MS III One Credit Lead Lab**  
A-F only, 1 credit(s); prereq Completion of basic courses, Concurrent registration is required (or allowed) in 3301;  
Instructor: Boisen, David J  
Description: Student may contact the instructor or department for information.

**MIL 3401 Developing Adaptive Leaders**  
A-F only, 3 credit(s); prereq Completed all other military courses or Army equiv, Concurrent registration is required (or allowed) in lab;  
Instructor: Conway, Michael  
Description: Student may contact the instructor or department for information.

**MIL 3403 MS IV One Credit Lead Lab**  
A-F only, 1 credit(s); prereq Completion of basic courses, Concurrent registration is required (or allowed) in 3401;  
Instructor: Conway, Michael  
Description: Student may contact the instructor or department for information.

**MIL 3501 Marksmanship Training Programs**  
A-F only, 2 credit(s);  
Instructor: Lykens, David A.  
Description: Student may contact the instructor or department for information.

**MIL 3970 Military History**  
A-F only, 3 credit(s);  
Instructor: Leonard, Doug Richard  
Description: General overview of all wars fought by the United States from our Revolutionary War to today's Global War on Terrorism. Military tactics as well as wars' impact on society will be covered. Course consists of 2 exams, 2 papers to write, and 700 pages of reading in the text books.  
Style: 50% Lecture, 30% Discussion, 20% Guest Speakers. Lectures are Tuesdays from 5pm-8pm in Armory room 116A.  
Grading: 20% mid exam, 20% final exam, 35% reports/papers, 25% written homework.

**Modern Greek**  
214 Social Sciences Tower

**MDGK 1001 Beginning Modern Greek I**  
4 credit(s);  
Instructor: Stavrou, Theofanis G  
Description: Student may contact the instructor or department for information.

**MDGK 1003 Intermediate Modern Greek I**  
4 credit(s); prereq 1002 or instr consent;  
Instructor: Stavrou, Soterios G  
Description: Student may contact the instructor or department for information.

**Molecular Cellular Developmental Biol and Genetics**  
250 Biological Sciences

**MCDG 8900 Student Research Seminar**  
S-N only, 1 credit(s), max credits 10, 10 completions allowed; prereq Grad MCDG or BMBB major dept consent;  
Instructor: Conklin, Kathleen F  
Description: Student may contact the instructor or department for information.

**MCDG 8920 Special Topics**  
1-4 credit(s), max credits 8, 8 completions allowed; prereq Grad MCDG or BMBB major or dept consent;  
Instructor: Titus, Margaret A.  
Description: Student may contact the instructor or department for information.

**MCDG 8950 Teaching Practicum**  
S-N only, 1 credit(s), max credits 2; prereq Grad MCDG major or dept consent;  
Instructor: Franco PhD, Peter John  
Description: Student may contact the instructor or department for information.

**MCDG 8994 Research**  
S-N only, 1-5 credit(s), max credits 10, 10 completions allowed; prereq MCDG grad student or dept consent;  
Instructor: Voytas, Daniel F  
Description: Student may contact the instructor or department for information.

**Mortuary Science**  
A-275 Mayo (Box 740)
MORT 3005 History of Funeral Service  
A-F only, 2 credit(s);  
Instructor: Mathews, Michael Clark  
Description: Student may contact the instructor or department for information.

MORT 3012 Organization and Management of Funeral Business  
A-F only, 3 credit(s); prereq Mortuary science major;  
Instructor: Woosley, Angela  
Description: Student may contact the instructor or department for information.

MORT 3014 Funeral Service Rules and Regulations  
A-F only, 2 credit(s); prereq Mortuary science major;  
Instructor: Mathews, Michael Clark  
Description: Student may contact the instructor or department for information.

MORT 3018 Funeral Practice  
A-F only, 3 credit(s); prereq Mortuary science major;  
Instructor: Mathews, Michael Clark  
Description: A study of the practice of funeral service arrangements and the conduct of funerals, including different types of funeral ceremonies, cemetary types and eligibility, obituary writing and use of computers in funeral service.  
Style: 80% Lecture, 15% Discussion.  
Grading: 60% mid exam, 20% final exam, 10% special projects, 5% in-class presentation, 5% class participation.  
Exam Format: Multiple choice

MORT 3018W Funeral Practice Psychology  
A-F only, 3 credit(s); prereq Introductory course in general psychology; Meets CLE req of Writing Intensive;  
Instructor: Ellis, Thomas Matthew  
Description: Student may contact the instructor or department for information.

MORT 3022W Funeral Service Arrangements  
A-F only, 3 credit(s); prereq 3018, 3021W; Meets CLE req of Writing Intensive;  
Instructor: Woosley, Angela  
Description: Student may contact the instructor or department for information.

MORT 3025 Business Law  
A-F only, 3 credit(s);  
Instructor: Meslow, Doug  
Description: Student may contact the instructor or department for information.

MORT 3048 Microbiology  
A-F only, 2 credit(s); prereq General biology course w/ lab. Students who have already taken a microbiology course are exempt from this course.;  
Instructor: Mathews, Michael Clark  
Description: Student may contact the instructor or department for information.

MORT 3051 Restorative Art  
A-F only, 2 credit(s); prereq [3171 or Concurrent registration is required (or allowed) in 3171], Concurrent registration is required (or allowed) in 3061, mortuary science major;  
Instructor: LaCourt, Jody Lynn  
Description: Student may contact the instructor or department for information.

MORT 3061 Embalming Theory  
A-F only, 3 credit(s); prereq [3171 or Concurrent registration is required (or allowed) in 3171], Concurrent registration is required (or allowed) in 3051, mortuary science major;  
Instructor: LaCourt, Jody Lynn  
Description: Student may contact the instructor or department for information.
**MUS 1001 Fundamentals of Music**

3 credit(s); prerequisite non-music majors

**Description:** An introduction to the musical notation and structure of Western music. This course is intended for non-music majors and will cover the following topics: rhythm, pitch, meter, keyboard, major/minor scales, intervals, chords, and harmony. Course work is participatory and includes singing, playing instruments, clapping and aural perception. Grades are determined from assignments, quizzes, a paper and mid-term and final exams. Class time includes two lectures and one lab per week. The syllabus is on the class web. (Note: this class includes four lab sections: 002, 003, 004, and 005.)

**Style:**

66% Lecture, 33% Laboratory.

**Grading:**

10% mid exam, 15% final exam, 10% reports/papers, 20% quizzes, 20% laboratory evaluation, 25% problem solving.

**Exam Format:**

Multiple choice and written answer; written and aural examination.

**MUS 1001 Fundamentals of Music**

3 credit(s); prerequisite non-music majors

**Description:** This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a group. Visit "Class URL" for ODl policies, including fee and financial aid restrictions. Most courses and texts on music and film tend to assume that you can sing the right notes at the right times. After you have completed this course, you should be able to:--read and write pitch notation in treble or bass clef;--read and write music in a variety of meters;--name and construct intervals, scales, and chords;--analyze a chord progression;--distinguish the sound of one interval, triad, or scale from another;--perform melodies written in a variety of keys and meters, by both singing and playing the piano; and--perform rhythmic notation accurately.

**Style:**

This is a printed, correspondence section.

**Grading:**

Written assignments 120 pts. Performance assignments 120 Course projects 60 Midcourse examination 100 Final examination 100 TOTAL 500

**Exam Format:**

Supervised, in-person (not online) exams.

**MUS 1013 Rock I: The Historical Origins and Development of Rock Music to 1970**

A-F only, 3 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Diversity and Soc Justice US

**Description:** An examination of the beginnings of rock music from its precursors circa 1900 through the early '70s: emphasis on early Rock and Roll, Rhythm and Blues, Soul Music, the first British Invasion, and the rock counterculture centered in San Francisco beginning in the mid-60s. The focus is upon rock as music, although lyrics and social milieu are also considered.

Course work is primarily comprised of readings, music listening in and out of class, frequent quizzes, and a comprehensive final exam.

**Style:**

30% Lecture, 30% Discussion, 30% Laboratory. quizzes and group work

**Grading:**

20% final exam, 50% reports/papers, 10% special projects, 20% quizzes.

**Exam Format:**

multiple-choice and other short answers

**MUS 1015 Music and Movies: The Use and Representation of Music and Musicians in Film in a Global Context**

A-F only, 4 credit(s);

**Instructor:** Lubel, Alex J

**Description:**

This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a group. Visit "Class URL" for ODl policies, including fee and financial aid restrictions. Rock music has been an enormously influential and reflexive social force. It is thus common in higher education to study rock primarily as sociology, history, English literature, and fashion--seemingly as anything but the music that is its essence. This course is an exception. Rock music is examined here principally as music--by a practicing musician. This by no means implies that rock's powerful social implications will be ignored, only that the potency of its social energy emanates from its uniquely compelling sound. For the purposes of this course, rock music will be construed to include all youth-based and youth-inspired American and American-influenced popular music of the era roughly spanning 1950 to 1970. We include both African-American and European-American styles, as well as styles bearing the influences of other ethnic groups.

**Style:**

Online

**Grading:**

Song Analysis--12% In My Life Essays--36% Come Together Essays--48% Discussion Questions--4%

**MUS 1015 Music and Movies: The Use and Representation of Music and Musicians in Film in a Global Context**

A-F only, 4 credit(s);

**Instructor:** Lubel, Alex J

**Description:**

This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a group. Visit "Class URL" for ODl policies, including fee and financial aid restrictions. Most courses and texts on music and film tend to dwell almost exclusively upon a single genre and a single relationship (e.g., How the underscoring can enhance the action, mood, or character portrayal in a particular genre--be it drama,
romance, or comedy). It has always been the norm to place limitations on the relationship between music and film. Specialized disciplines have produced numerous masterpieces, and we will not ignore them in this course. However, the relationship between music and film is far more complex than this and begs to be explored more fully. In particular, the depiction of music and musicians on-screen has been enormously common. It has been exceptionally useful in conveying plot, characterization, archetypes, and even in symbolizing entire cultures and "types."

**Style:** Online

**Grading:** 25% final exam, 50% reports/papers, 25% special projects. See syllabus for complete grading information.

**Exam Format:** Take-home exam

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**MUS 1052 Introduction to Music**

3 credit(s); Credit will not be granted if credit has been received for: MUS 3021; Meets CLE req of Arts/Humanities;

**Instructor:** Mercer-Taylor,Peter J

**Description:** This course is intended as an introduction to the process of serious musical listening. Though the historical styles, forms, and cultural foundations of European classical music will form the core of our subject matter and it is exclusively on this material that you will be graded—we will stray repeatedly into popular music traditions in the course of our explorations.

**Style:** 85% Lecture, 15% Discussion.

**Grading:** 50% mid exam, 40% final exam, 10% other evaluation. attendance

**Exam Format:** Identification and short-answer questions.

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**MUS 1051 Class Piano for Nonmusic Majors I**

OPT No Aud, 2 credit(s);

**Instructor:** STAFF

**Description:** A beginning course for non-music majors with little or no keyboard background. Emphasis on basic functional skills, such as reading, harmonizing, playing by ear and improvising, along with basic technique, elementary repertoire, and music theory (written). Taught by graduate assistants in an electronic multi-piano lab. Includes lecture, group and individual performance, and some individual instruction. Outside practice is required. Practice rooms may be rented through the School of Music. Text: Contemporary Class Piano, 7th ed. by Elyse Mach. Mus 1051 covers Units 1-5, including intervals up to a fifth, major scales and key signatures, major and minor 5-finger patterns and triads, and accompaniments using I, IV and V7 chords.

**Style:** 10% Lecture, 90% Laboratory.

**Grading:** 20% mid exam, 25% final exam, 40% quizzes, 10% class participation, 5% other evaluation. two written projects

**Exam Format:** Individual keyboard performance (plus some written theory).

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**MUS 1052 Class Piano for Non Music Majors II**

OPT No Aud, 2 credit(s);

**Instructor:** STAFF

**Description:** Continuation of Mus 1051. Emphasis on basic functional skills, such as reading, harmonizing, playing by ear and improvising, along with basic technique, elementary repertoire, and music theory (written). Taught by graduate assistants in an electronic multi-piano lab. Includes lecture, group and individual performance, and some individual instruction. Outside practice is required. Practice rooms may be rented through the School of Music. Text: Contemporary Class Piano, 7th ed. by Elyse Mach. Mus 1052 begins with a review of Mus 1051 and covers Units 6-10, including major and minor scales; intervals up to an octave; accompaniment styles; ABA form; syncopation; secondary chords; pedaling; other scale forms; harmonizing with i, iv, and V7 in minor; jazz styles; 2-hand accompaniments; and major and minor 7th chords.

**Style:** 10% Lecture, 90% Laboratory.

**Grading:** 20% mid exam, 25% final exam, 5% special projects, 40% quizzes, 10% class participation.

**Exam Format:** Individual keyboard performance (plus some written theory).

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**MUS 1151 Piano: Class Lessons I**

A-F only, 2 credit(s); prerequisite major and instr consent;

**Instructor:** STAFF

**Description:** A beginning course for freshman music majors or minors with limited keyboard background. Co-requisite for freshman music theory. Taught by graduate assistants in an electronic piano lab. Emphasis is on functional skills, such as reading, transposing, harmonizing, improvising, and playing by ear, along with keyboard theory, technique, and repertoire. Includes lecture, group and individual performance, and some individual instruction. Text: "Group Piano for Adults Book I" by Lancaster and Rentrow, 2nd ed. and "Easy Classics to Moderns" by Agay. Mus 1151 covers Units 1-13. Students with previous piano background should contact the School of Music for information regarding placement or credit by exam.

**Style:** 10% Lecture, 90% Laboratory.

**Grading:** 25% mid exam, 25% final exam, 40% quizzes, 10% class participation.

**Exam Format:** Individual keyboard performance

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**MUS 1155 Keyboard Skills I**

A-F only, 2 credit(s); prerequisite major or music major with extensive keyboard background or instr consent;

**Instructor:** Shockley,Rebecca F

**Description:** Mus 1155 Keyboard Skills I. A functional piano skills course for freshman keyboard majors and other music majors with extensive keyboard background, to be taken with freshman music theory. Emphasis is on reading, transposing, harmonizing, improvising and playing by ear, along with keyboard theory, technique, and music learning skills. Taught in an electronic piano lab. (Advanced non-keyboard majors may substitute one semester of Mus 1155 for Mus 1151-1152 with instructor permission.) Text: Harmonization at the Piano (6th ed.) by Frackenpohl plus supplementary materials available on the course website. 1155 covers chapters 1-6 plus 3-part vocal scores.

**Style:** 10% Lecture, 90% Laboratory.

**Grading:** 20% mid exam, 20% final exam, 40% quizzes, 15% in-class presentation, 5% class participation.

**Exam Format:** Individual keyboard performance

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**MUS 1260 Voice Class**

2 credit(s), max credits 4; prerequisite Basic musicianship for learning and performing simple songs;

**Instructor:** Skovira,Katherine Anne

**Description:** Student may contact the instructor or department for information.

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**MUS 1471 Guitar: Class Lessons I**

A-F only, 2 credit(s);

**Instructor:** STAFF

**Description:** Fundamentals for the beginning guitarist; progressive development of skills. Beginning finger-style technique. Introductory sight-reading skills. Emphasis on practice, performance methods, posture, and sound production. Students must furnish an acoustic guitar, preferably a nylon-string guitar.

**Style:** 40% Lecture, in-class performance

**Grading:** 25% mid exam, 25% final exam, 50% class participation.

**Exam Format:** performance

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**MUS 1501 Theory and Analysis of Tonal Music I**

A-F only, 2 credit(s); prerequisite dept consent;

**Instructor:** STAFF

**Description:** The first semester of a four-semester sequence of courses devoted to tonal music theory. The focus of these courses is on analysis of music of the eighteenth and nineteenth centuries, part-writing (learning how to write music in historical styles), and skills including sight-singing, ear-training, and keyboard performance. Music 1501 is intended primarily for music majors and music minors. Non-majors generally enroll in Mus 1001 unless they intend to continue in the theory sequence beyond a single term.

**Style:** 40% Lecture, 40% Discussion, 20% Laboratory.

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**MUS 1801W Music, Society, and Cultures**

A-F only, 3 credit(s); prerequisite [Music major or instr consent ],

**Instructor:** Skovira,Katherine Anne

**Description:** This course is intended as an introduction to the process of serious musical listening. Though the historical styles, forms, and cultural foundations of European classical music will form the core of our subject matter and it is exclusively on this material that you will be graded—we will stray repeatedly into popular music traditions in the course of our explorations. This course is intended as an introduction to the process of serious musical listening. Though the historical styles, forms, and cultural foundations of European classical music will form the core of our subject matter and it is exclusively on this material that you will be graded—we will stray repeatedly into popular music traditions in the course of our explorations. This course is intended as an introduction to the process of serious musical listening. Though the historical styles, forms, and cultural foundations of European classical music will form the core of our subject matter and it is exclusively on this material that you will be graded—we will stray repeatedly into popular music traditions in the course of our explorations. This course is intended as an introduction to the process of serious musical listening. Though the historical styles, forms, and cultural foundations of European classical music will form the core of our subject matter and it is exclusively on this material that you will be graded—we will stray repeatedly into popular music traditions in the course of our explorations.
permission number; Meets CLE req of Arts/Humanities; meets CLE req of Global Perspectives; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

MUS 1804 World Music
3 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Global Perspectives;
Instructor: STAFF
Description: If you love music, this is the course for you. The only prerequisite is curiosity. Whether you have musical training or not, music is an integral part of your life. You are not only surrounded by it, but you use it to define who you are and what you value in life. This is a great opportunity for non-music majors to get introduced to music from a world music perspective. Explore this exciting world and gain a crosscultural understanding of basic musical elements (rhythm, harmony, melody, texture, and timbre). You will be taken on a musical tour around the globe, focusing on a small number of representative cultures. Our goal is to understand how each representative musical case study fits into a larger cultural, social, and political context. What does it mean to be a musician? How do people conceptualize music? How does music relate to a culture’s daily life and understanding of the universe? These are some of the questions we will be addressing. This course will broaden your horizons and sharpen your critical thinking. You will also have some hands-on musical experiences (you will not be evaluated on the basis of your musical ability). Using musical case studies from around the world, we will explore differences in aesthetics that stem from different lifestyles and values. The course objectives will be accomplished through lectures, video viewing, lots of listening, some hands-on musical experience, selected readings, and assigned concert attendance.

MUS 1905 Topics: Freshman Seminar
A-F only, 3 credit(s); prereq freshman;
Instructor: Mazzola PhD,Guerino
Description: This seminar is about the way music comes into our existence?From its symbolic abstraction to the vibrations of our psyche and the physical waves, and how it is communicated among humans from composers to audiences; how it creates poetic, emotional, and physiological meaning; is embodied in musicians? lives; and unfolds abstract formulas into living gestures. The seminar should clarify to freshmen why they want to study music, and why music is about the whole life. This study is not an easy game, but is as serious as your life.

MUS 1908W Topics: Freshman Seminar
A-F only, 3 credit(s), max credits 6; prereq Fr; Meets CLE req of Civic Life and Ethics; meets CLE req of Writing Intensive;
Instructor: Painter PhD,Karen
Description: Does art sustain those in power or can it be independent and even adversarial? Are artists, musicians, and critics responsible for the effect of what they produce and publish, regardless of their intentions? The relationship of art and politics is contested in every era and under all sorts of regimes. Can those in power use the arts?or the media?to legitimate their rule for better or worse? Can the arts maintain their independence? What role do the listener or amateur musician play in pursuing a political agenda or resisting? The seminar will examine the role of art and art censorship in civic life by focusing on the role of music in one of history's most brutal regimes, which was also among the greatest patrons of music. What did mean for a musician, conductor, or composer to collaborate, and what were the degrees of collaboration and associated guilt and punishment? Did music matter to the built up of support for Nazism or the conformism required by the totalitarian state (even if some aspects of the regime defied this unity)? And finally it asks how should citizens of democratic societies commemorate and judge the choices that artists made in harsher times.
Style: 20% Lecture, 20% Film/Video, 40% Discussion, 20% Student Presentations.
Grading: 65% reports/papers, 20% reflection paper, 15% class participation. Weekly reaction emails are 1-2 paragraphs. The two lowest grades will not count, and you may miss 2 weeks.

A-F only, 3 credit(s); prereq freshman; Meets CLE req of Writing Intensive;
Instructor: Currie,Scott
Description: What's on your iPod and what does it say about where you've been, who you are, and what you want to be? How can we begin to understand the meaning of the sounds that fill our lives and come to define our selves? The colloquium format of this seminar will allow us to sample historical, anthropological, and theoretical perspectives on the experience of sound, offering conceptual frameworks to inspire and guide further investigation. Independent research projects will give you the chance to apply these approaches to the multi-faceted study of your own sonic world(s). In this course, the ability to read, write, or play music may be helpful but not at all essential; the willingness, however, to listen deeply and think critically will be indispensable.
Style: 50% Lecture, 33% Discussion, 5% Student Presentation, 12% Guest Speakers.
Grading: 75% reports/papers, 15% in-class presentation, 10% class participation.

MUS 3021 Introduction to Music
3 credit(s); Credit will not be granted if credit has been received for: MUS 1021; Meets CLE req of Arts/Humanities;
Instructor: Mercer-Taylor,Peter J
Description: This course is intended as an introduction to the process of serious musical listening. Though the styles, forms, and cultural foundations of European classical music will form the core of our subject matter-and it is exclusively on this material that you will be graded-we will stray repeatedly into popular music traditions in the course of our explorations.
Style: 85% Lecture, 15% Discussion.
Grading: 42% mid exam, 32% final exam, 16% reports/papers, 10% other evaluation, attendance
Exam Format: Identification and short-answer questions

MUS 3045 The Avant-Garde
A-F only, 3 credit(s);
Instructor: Lube,t,Alex J
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit “Class URL” for ODL policies, including fee and financial aid information. No one can truly “appreciate” music without the experiences of performance and composition. Taking as a point of departure the Avant-Gard’s notions that all sounds are potentially musical and that all people are potentially musicians—ideas that are also among my most cherished musical beliefs—you will be asked to create a musical “performance event” that includes at least one of your own original compositions. While you may at first doubt your ability to accomplish this formidable artistic endeavor, let me assure you that, based on my years of experience teaching this course, you can do this and you will enjoy it! You may like it so much that, long after you have completed this course, you may, like several of my students, come to think of yourself as a composer and musician and continue to create and perform works of sonic art. Nothing would please me more.
Style: Online
Grading: Course Completion Calendar (1%) Seven journal assignments (49%) Final project (50%)

MUS 3230 Chorus
1-2 credit(s), max credits 16, 8 completions allowed; prereq Choral and/or instrumental music background, audition, instr consent;
Instructor: Culloton,Matthew Richard
Description: Student may contact the instructor or department for information.

MUS 3230 Chorus
1-2 credit(s), max credits 16, 8 completions allowed; prereq Choral and/or instrumental music background, audition, instr consent;
MUS 3230 Chorus  
1-2 credit(s), max credits 16, 8 completions allowed; prereq Choral and/or instrumental music background, audition, instr consent;  
Instructor: Hayes, W. Bryce  
Description: Student may contact the instructor or department for information.  

MUS 3241 Vocal Literature (German Lieder) and Pedagogy  
A-F only, 1 credit(s); prereq [Vocal performance or accompanying major], 2 yrs music theory/history;  
Instructor: Zawisza, Philip David  
Description: Student may contact the instructor or department for information.  

MUS 3242 Orchestra  
A-F only, 1 credit(s), max credits 8, 8 completions allowed; prereq Audition, instr consent;  
Instructor: Diem, Timothy W  
Description: Student may contact the instructor or department for information.  

MUS 3240 University and Campus Bands  
2 credit(s), max credits 20, 10 completions allowed;  
Instructor: Zarco, John  
Description: Student may contact the instructor or department for information.  

MUS 3410 University Wind Bands  
A-F only, 1 credit(s), max credits 14, 14 completions allowed; prereq Audition, instr consent;  
Instructor: Luckhardt, Jerry M  
Description: A music ensemble of select wind and percussion players. The ensemble includes a number of undergraduate and graduate majors from other disciplines. Symphonic band performs 4 to 5 concerts each academic year. Admission is by audition only.  
Style: rehearsal  
Grading: rehearsal preparation and performance  

MUS 3420 Chamber Ensemble  
A-F only, 1 credit(s), max credits 8, 8 completions allowed; prereq Audition, instr consent;  
Instructor: Specht, Jeffrey Frederick  
Description: Student may contact the instructor or department for information.  

the Indoor Concerts in early December. Currently, no formal audition is necessary, but registration for Spat Camp with the Marching Band Office is required by June 30.

**MUS 3490 Athletics Bands**

A-F only, 1 credit(s), max credits 16, 16 completions allowed; prereq instr consent;
Instructor: Dunn, Timothy W

**Description:** Three Athletic Pep bands, which play for men’s hockey and basketball and women’s volleyball, basketball and hockey, begin in September. Each band will perform 25-30 times throughout the year including regular season and post season events. Audition is required and are held in early September for formation of the three groups. Year-long participation is required.

**MUS 3501 Theory and Analysis of Tonal Music III**

A-F only, 2 credit(s); prereq [[1501, 1502, 1511, 1512] with grade of at least C-] or diagnostic test administered by School of Music;
Instructor: Bribitzer-Stull, Matt

**Description:** Student may contact the instructor or department for information.

**MUS 3511 Ear-Training and Sight-Singing III**

A-F only, 1 credit(s); prereq [[1501, 1511] with grade of at least C-] or diagnostic test administered by School of Music, [music major or instr consent ];
Instructor: Bribitzer-Stull, Matt

**Description:** Student may contact the instructor or department for information.

**MUS 3518 Review of Ear-Training and Sight-Singing**

1 credit(s); prereq Theory Placement Exam;
Instructor: STAFF

**Description:** A course intended for transfer and graduate music majors who, based on the Placement Exam for Entering Students, require remediation in ear-training and sight-singing. Mus 3518 covers at a fast pace the ear-training content of Mus 1502 (Theory II) and Mus 3501 (Theory III). After Mus 3518, the sequence continues with Mus 3502 (for students who need both theory and ear-training review for the contents of Theory IV) or Mus 3511 (for students who need only ear-training review for the contents of Theory IV).

**Style:** 40% Discussion, 50% Laboratory. sight-singing auditions
**Grading:** 20% mid exam, 20% final exam, 10% quizzes, 50% other evaluation. sight-singing auditions

**Exam Format:** dictation

**MUS 3602W History of Western Music II**

A-F only, 3 credit(s); prereq 1502, 3601, music major, instr consent; Meets CLE req of Writing Intensive;
Instructor: Harness, Kelley A

**Description:** Student may contact the instructor or department for information.

**MUS 3603W History of Western Music II**

A-F only, 3 credit(s); prereq 1502, 3601, music major, instr consent; Meets CLE req of Writing Intensive;
Instructor: Kuntz, Danielle M

**Description:** Student may contact the instructor or department for information.

**MUS 3950 Topics in Music: Introduction to Music Information Technology**

3 credit(s), max credits 15, 5 completions allowed;
Instructor: Mazzola PhD, Guerino

**Description:** Student may contact the instructor or department for information.

**MUS 4504 Intensive Theory and Analysis of 20th-Century Music**

A-F only, 2 credit(s); prereq [3502, 3512] or instr consent;
Instructor: Gopinath, Sumanth S

**Description:** Student may contact the instructor or department for information.

**MUS 4505 Jazz Theory**

A-F only, 3 credit(s); prereq [3501, 3511] with grades of at least C-;
Instructor: Sorenson, Dean Patrick

**Description:** Jazz Theory explores the music theory concepts that exist within jazz performance, composition, and improvisation. The course is intended for upper division undergraduates or graduate students who have a good background in traditional music theory.

**Style:** 100% Lecture.

**Grading:** 15% midterm, 30% final exam, 13% quizzes, 12% problem solving, 30% other evaluation.

**Exam Format:** Two other exams, in addition to the final and the midterm

**MUS 4514 Ear-Training and Sight-Singing for 20th-Century Music**

A-F only, 1 credit(s); prereq Completion of [3502, 3512] with grade of at least C-;
Instructor: Gopinath, Sumanth S

**Description:** Student may contact the instructor or department for information.

**MUS 5101 Piano Pedagogy I**

2 credit(s); prereq 8 cr in Musa 1301 or Musa 1401 or instr consent;
Instructor: Shockley, Rebecca P

**Description:** First semester of a year-long course, offered jointly through day school and Continuing Education and Extension. Demonstration and discussion of teaching techniques, methods, and materials for group and individual instruction. Emphasis on the beginning and intermediate levels. Includes observation, reading, discussion, class presentation and hands-on experience. Text: “Teaching Piano in Groups” by Christopher Fisher, plus supplementary material available on the website. Intended for piano majors or pianists with piano teaching experience. Prereq: two years of college-level applied piano instruction or #.

**Style:** 25% Lecture, 25% Discussion, 25% Laboratory, 25% Student Presentation;

**Grading:** 20% midterm, 20% final exam, 20% reports/papers, 20% in-class presentation, 20% other evaluation.

**Exam Format:** essay

**MUS 5150 Body Awareness in Activity: The Alexander Technique for Musicians**

2 credit(s), max credits 4;
Instructor: McCullough, Brian

**Description:** The Alexander Technique is a century-old technique used by musicians and others as a means of solving performance problems. It’s principles address how the daily habits in the use of the self (such as sitting, standing, walking, and reaching) affect seemingly disparate problems such as stage fright, musculoskeletal pain, playing induced injuries, and computer use injuries. For musicians, the interplay of unconscious habits and the body mechanics of daily use of the self strongly affect tone production and technical ease. The Alexander Technique provides tools to enhance fundamental coordination leading to improved performance. The texts used are: “Indirect Procedures—A Musician’s Guide to the Alexander Technique” by Pedro de Alcantara; and “Mind and Muscle” by Elizabeth Langford. Class discussions will center on assigned readings and each student will be responsible for two short papers on selected portions of the texts. Also open to non-musicians.

**Style:** 10% Lecture, 25% Film/Video, 25% Discussion, 25%
Laboratory, 15% Demonstration. Individual work with students.

**Grading:** 33% reports/papers, 33% attendance, 33% class participation.

**MUS 5151 Organ Literature I**
- A-F only, 3 credit(s); prereq 3502, 3603, sr or grad or instr consent;
- Instructor: Billmeyer, Dean W
- **Description:** Student may contact the instructor or department for information.

**MUS 5181 Advanced Piano Literature I**
- A-F only, 2 credit(s); prereq grad piano major or instr consent;
- Instructor: Shaw, Paul Magnus
- **Description:** Student may contact the instructor or department for information.

**MUS 5230 Chorus**
- 1-2 credit(s), max credits 16, 8 completions allowed; prereq Choral and/or instrumental music background; audition, instr consent;
- Instructor: Culloton, Matthew Richard
- **Description:** Student may contact the instructor or department for information.

**MUS 5230 Chorus**
- 1-2 credit(s), max credits 16, 8 completions allowed; prereq Choral and/or instrumental music background; audition, instr consent;
- Instructor: J. Hyun Jung
- **Description:** Student may contact the instructor or department for information.

**MUS 5230 Chorus**
- 1-2 credit(s), max credits 16, 8 completions allowed; prereq Choral and/or instrumental music background; audition, instr consent;
- Instructor: Hayes, W. Bryce
- **Description:** Student may contact the instructor or department for information.

**MUS 5230 Chorus**
- 1-2 credit(s), max credits 16, 8 completions allowed; prereq Choral and/or instrumental music background; audition, instr consent;
- Instructor: Owen, Christopher
- **Description:** Student may contact the instructor or department for information.

**MUS 5240 University Singers**
- A-F only, 1 credit(s), max credits 8, 8 completions allowed; prereq Audition, instr consent;
- Instructor: Romey, Kathy Saltzman
- **Description:** Student may contact the instructor or department for information.

**MUS 5250 Opera Workshop and Ensemble**
- A-F only, 2 credit(s), max credits 16, 8 completions allowed; prereq audition, instr consent;
- Instructor: Walsh, David Allan
- **Description:** Section 1 of Opera Workshop is designed to provide performance-oriented opera and music theatre singers with theoretical and practical instruction in opera stagecraft. The course will combine theatre games and exercises, improvisations, script readings, plus rehearsal of selected opera and music theatre repertoire appropriate to the skill development of the individual student. The 'non-production' nature of this course means that the student has the possibility of exploring and 'trying things out'. Section 2 of Opera Workshop will include participation in the chorus of Opera Theatre productions, where appropriate. Participation in this class (either section) will be determined through an audition process, and/or interview with the instructor, and will be restricted to graduate students and juniors/seniors in the undergraduate programme (exceptions to this restriction may be made on an individual basis, in discussion with the instructor)."  
- **Style:** 20% Discussion. Practical instruction in stagecraft  
- **Grading:** 20% in-class presentation, 80% class participation.  
- **Exam Format:** There are no formal exams. The in-class participation and the presentation of improvis, script readings and scene studies will be the basis for grading the students' accomplishments and progress.

**MUS 5250 Opera Workshop and Ensemble**
- A-F only, 2 credit(s), max credits 16, 8 completions allowed; prereq audition, instr consent;
- Instructor: Zabala, Adriana
- **Description:** Student may contact the instructor or department for information.

**MUS 5271 Diction for Singers I**
- A-F only, 2 credit(s); prereq 12 cr MusA 1304 or grad music major or instr consent;
- Instructor: Zawisza, Philip David
- **Description:** Student may contact the instructor or department for information.

**MUS 5275 Vocal Pedagogy I**
- 3 credit(s); prereq Sr vocal major or instr consent;
- Instructor: Del Santo, Jean Marie
- **Description:** Student may contact the instructor or department for information.

**MUS 5280 Opera Theatre**
- A-F only, 2 credit(s), max credits 16, 8 completions allowed; prereq audition, instr consent;
- Instructor: Walsh, David Allan
- **Description:** The Opera Theatre programme is designed to provide performance-oriented opera and music theatre singers with theoretical and practical instruction in opera stagecraft, as well as genuine operatic performance experience. Two fully-staged productions per school year, with all the relevant staging demands, offer the student performers an opportunity to showcase her/his talent in a public presentation. Opera Theatre classes will be determined on the basis of audition.
- **Style:** 20% Discussion. Direct practical staging instruction  
- **Grading:** 100% other evaluation. Staging and musical work  
- **Exam Format:** Performances of the opera production each semester

**MUS 5340 Jazz Ensemble**
- A-F only, 1 credit(s), max credits 6, 6 completions allowed; prereq audition, instr consent;
- Instructor: Sorenson, Dean Patrick
- **Description:** The University Jazz Ensembles play a wide variety of big band repertoire and perform for many events, both on and off campus. Entrance is limited to instruments that are traditionally a part of the big band: trumpet, trombone, saxophone, piano, guitar, bass, drums, and percussion. Placement is by audition, and registration is not permitted until after an audition has taken place.
- **Style:** Rehearsal/performance

**MUS 5410 University Wind Bands**
- A-F only, 1 credit(s), max credits 14, 14 completions allowed; prereq audition, instr consent;
- Instructor: Luckhardt, Jerry M
- **Description:** A music ensemble of select wind and percussion players. The ensemble includes a number of undergraduate and graduate majors from other disciplines. Symphonic band performs 4 to 5 concerts each academic year. Admission is by audition only.
- **Style:** rehearsal  
- **Grading:** rehearsal preparation and performance

**MUS 5410 University Wind Bands**
- A-F only, 1 credit(s), max credits 14, 14 completions allowed; prereq audition, instr consent;
- Instructor: Kirchoff, Craig J
- **Description:** A select ensemble comprising the University's finest graduate and undergraduate wind and percussion
The course begins with an overview of the
descriptions:
Instructor: Cherlin, Michael
Description: The course begins with an overview of the
structural and figurative elements of poetry and the basic ways
that poetic structure and image interact with musical elements.
We then divide the course into four units studying examples from
German lied, Italian opera, French melodie, and British and
American art song. The repertory ranges from the late 18th
century to the recent past.
Style: 60% Lecture, 40% Discussion.
Grading: 100% reports/papers.

MUS 5611 Resources for Music Research
A-F only, 3 credits(s); prerequisite 3603;
Instructor: Maloney, Timothy
Description: Student may contact the instructor or department
for information.

MUS 5624 Music of J. S. Bach
A-F only, 3 credits(s); prerequisite Grad student in music or instr
consent;
Instructor: Harness, Kelley A
Description: Student may contact the instructor or department
for information.

MUS 5950 Topics in Music: Guitar Literature and Pedagogy
3 credits(s), max credits 15, 15 completions allowed;
Instructor: Fliegel, James F
Description: Student may contact the instructor or department
for information.

MUS 5950 Topics in Music: Popular Music of the Rock Era
3 credits(s), max credits 15, 15 completions allowed;
Instructor: Mercer-Taylor, Peter J
Description: Student may contact the instructor or department
for information.

MUS 5950 Topics in Music: Musical Minimalisms
3 credits(s), max credits 15, 15 completions allowed;
Instructor: Gopinath, Sumanth S
Description: Student may contact the instructor or department
for information.

MUS 5950 Topics in Music: Advanced Conducting: Rehearsal
Pedagogy
2 credits(s), max credits 15, 15 completions allowed;
Instructor: Mehaffey, Matthew Wayne
Description: Student may contact the instructor or department
for information.

MUS 5950 Topics in Music: Art Music and Folklore
3 credits(s), max credits 15, 15 completions allowed;
Instructor: Currie, Gabriela
Description: Student may contact the instructor or department
for information.

MUS 5950 Topics in Music: Improvisation for the Artist/Teacher
I
3 credits(s), max credits 15, 15 completions allowed;
Instructor: Huovinen, Erkki Simeon
Description: Student may contact the instructor or department
for information.

MUS 8110 Sonata Seminar
A-F only, 2 credits(s), max credits 8, 4 completions allowed;
prerequisite Accompanying emphasis, strings and winds by
audition, instr consent;
Instructor: Lovelace, Timothy
Description: Student may contact the instructor or department
for information.

MUS 8131 Advanced Keyboard Skills
<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MUS 8182</td>
<td>Opera History in Context: Monteverdi and Mozart</td>
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<tr>
<td>MUS 8255</td>
<td>Choral Literature: Baroque Era to the Present</td>
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<td>MUS 8299</td>
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<td>MUS 8450</td>
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<tr>
<td>MUSA 1104</td>
<td>Voice: Elective (non-major in music)</td>
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<td>MUSA 1103</td>
<td>Organ: Elective (non-major in music)</td>
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<tr>
<td>MUSA 1104</td>
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<tr>
<td>MUS 8640</td>
<td>Seminar in Musicology: Debussy Source Studies</td>
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<tr>
<td>MUS 8864</td>
<td>Current Issues in Ethnomusicology</td>
</tr>
<tr>
<td>MUS 8864</td>
<td>Current Issues in Ethnomusicology</td>
</tr>
</tbody>
</table>

Description:

Student may contact the instructor or department for information.

Instructor: Billmeyer, Dean W

Description: Individual piano instruction by graduate piano TAs for non-music majors with prior piano study. Weekly 30-minute or 60-minute lessons are arranged individually with the instructor, along with a short jury exam at the end of the semester.

Requires permission by the Class Piano Coordinator or a piano T.A. Information on applied music fees and how to obtain permission to register may be obtained from the School of Music Office, Room 100 Ferguson Hall, (612) 624-5740, or at http://www.music.umn.edu/students/Piano%20Ap%201101_3101_5101.pdf

Style: individual lessons

Grading: 40% final exam, 60% other evaluation.

Weekly lesson preparation

Exam Format: individual keyboard performance (jury)
University of Minnesota - Course Guide for Twin Cities Campus

Fall 2010

A-F only, 2-4 credit(s), max credits 32, 8 completions allowed; prereq dept consent;
Instructor: Zabala, Adriana
Description: Student may contact the instructor or department for information.

MUSA 1104 Voice: Elective (non-major in music)
A-F only, 2-4 credit(s), max credits 32, 8 completions allowed; prereq dept consent;
Instructor: Smith, Laura Anne
Description: Student may contact the instructor or department for information.

MUSA 1105 Violin: Elective (non-major in music)
A-F only, 2-4 credit(s), max credits 32, 8 completions allowed; prereq dept consent;
Instructor: Kim, Young-Nam
Description: Student may contact the instructor or department for information.

MUSA 1123 Guitar: Elective (non-major in music)
A-F only, 2-4 credit(s), max credits 32, 8 completions allowed; prereq dept consent;
Instructor: Mendoza-Santiago, Eduardo
Description: Student may contact the instructor or department for information.

MUSA 1123 Guitar: Elective (non-major in music)
A-F only, 2-4 credit(s), max credits 32, 8 completions allowed; prereq dept consent;
Instructor: Mirci, Tanja
Description: Student may contact the instructor or department for information.

MUSA 1123 Guitar: Elective (non-major in music)
A-F only, 2-4 credit(s), max credits 32, 8 completions allowed; prereq dept consent;
Instructor: Zabala, Adriana
Description: Student may contact the instructor or department for information.

MUSA 1301 Piano: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;
Instructor: Shaw, Paul Magnus
Description: Student may contact the instructor or department for information.

MUSA 1301 Piano: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;
Instructor: Zabala, Adriana
Description: Student may contact the instructor or department for information.

MUSA 1302 Harpsichord: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;
Instructor: Billmeyer, Dean W
Description: Student may contact the instructor or department for information.

MUSA 1303 Organ: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;
Instructor: Turner, Thomas
Description: Student may contact the instructor or department for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
MUSA 1307 Cello: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Remenikova,Tanya  
Description: Student may contact the instructor or department for information.

MUSA 1308 Double Bass: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Brown,Christopher Craig  
Description: Student may contact the instructor or department for information.

MUSA 1309 Flute: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Bogorad,Julia A  
Description: Student may contact the instructor or department for information.

MUSA 1311 Oboe: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Snow,John D  
Description: Student may contact the instructor or department for information.

MUSA 1312 Clarinet: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Meffert-Nelson,Karrin Diane  
Description: Student may contact the instructor or department for information.

MUSA 1312 Clarinet: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Hara,Burt T  
Description: Student may contact the instructor or department for information.

MUSA 1313 Saxophone: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Wyatt,Angela J.  
Description: Student may contact the instructor or department for information.

MUSA 1313 Saxophone: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Rousseau,Eugene E  
Description: Student may contact the instructor or department for information.

MUSA 1314 Bassoon: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Miller Jr,John W  
Description: Student may contact the instructor or department for information.

MUSA 1314 Bassoon: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Hey,Philip C  
Description: Student may contact the instructor or department for information.

MUSA 1315 French Horn: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Gast,Michael C  
Description: Student may contact the instructor or department for information.

MUSA 1315 French Horn: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Baldwin,David B  
Description: Student may contact the instructor or department for information.

MUSA 1316 Trumpet: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Ashworth,Thomas Jackson  
Description: Student may contact the instructor or department for information.

MUSA 1316 Trumpet: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Tranter,John Harrington  
Description: Student may contact the instructor or department for information.

MUSA 1317 Trombone: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Nielubowski,Norbert John  
Description: Student may contact the instructor or department for information.

MUSA 1321 Percussion: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Meza,Fernando A.  
Description: Student may contact the instructor or department for information.

MUSA 1321 Percussion: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Ullery,Charles G  
Description: Student may contact the instructor or department for information.

MUSA 1321 Percussion: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Meza,Fernando A.  
Description: Student may contact the instructor or department for information.

MUSA 1321 Percussion: Music Major  
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent;  
Instructor: Meza,Fernando A.  
Description: Student may contact the instructor or department for information.
MUSA 1322 Harp: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prerequisite: Audition, dept consent;
Instructor: Van, Jeffrey W
Description: Individual harp instruction by graduate TAs;
Prerequisites: Audition, department consent; A-F only, 2-4 credit(s), max credits 16, 8 completions allowed;
Instructor: Grau, John Thomas
Description: Student may contact the instructor or department for information.

MUSA 1323 Guitar: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prerequisite: Audition, dept consent;
Instructor: Grau, John Thomas
Description: Student may contact the instructor or department for information.

MUSA 1401 Piano: Music Major Secondary (undergraduate)
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prerequisite: Piano major, department consent;
Instructor: STAFF
Description: Individual piano instruction with graduate TAs for music majors who have completed Class Piano Mus 1151-1152 or equivalent proficiency. Weekly 30-minute or 60-minute lessons are arranged individually with the instructor, along with a short jury exam at the end of the semester. Information on applied music fees and how to register may be obtained from the School of Music Office, Room 100 Ferguson Hall, or at http://www.music.umn.edu/students/Piano%20Ap%201401%203401%20info
Style: Individual lessons
Grading: 40% final exam, 60% other evaluation. Weekly lesson preparation
Exam Format: Individual keyboard performance (jury)

MUSA 1402 Harpsichord: Music Major Secondary (undergraduate)
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prerequisite: Piano major, department consent;
Instructor: Billmeyer, Dean W
Description: Student may contact the instructor or department for information.

MUSA 1403 Organ: Music Major Secondary (undergraduate)
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prerequisite: Piano major, department consent;
Instructor: Billmeyer, Dean W
Description: Student may contact the instructor or department for information.

MUSA 1404 Voice: Music Major Secondary (undergraduate)
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prerequisite: Audition, department consent;
Instructor: Zawisza, Philip David
Description: Student may contact the instructor or department for information.

MUSA 1404 Voice: Music Major Secondary (undergraduate)
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prerequisite: Audition, department consent;
Instructor: Skovira, Katherine Anne
Description: Student may contact the instructor or department for information.

MUSA 1404 Voice: Music Major Secondary (undergraduate)
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prerequisite: Audition, department consent;
Instructor: Zabala, Adriana
Description: Student may contact the instructor or department for information.

MUSA 1404 Voice: Music Major Secondary (undergraduate)
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prerequisite: Audition, department consent;
Instructor: Smith, Laura Anne
Description: Student may contact the instructor or department for information.

MUSA 1405 Violin: Music Major Secondary (undergraduate)
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prerequisite: Audition, department consent;
Instructor: Kim, Young-Nam
Description: Student may contact the instructor or department for information.

MUSA 1414 Bassoon: Music Major Secondary (undergraduate)
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prerequisite: Audition, department consent;
Instructor: Miric, Darka
Description: Student may contact the instructor or department for information.

MUSA 1423 Guitar: Music Major Secondary (undergraduate)
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prerequisite: Audition, department consent;
Instructor: Mendoza-Santiago, Eduardo
Description: Student may contact the instructor or department for information.

MUSA 1423 Guitar: Music Major Secondary (undergraduate)
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prerequisite: Audition, department consent;
Instructor: Miric, Tanja
Description: Student may contact the instructor or department for information.

MUSA 1901 Piano: Music Major Transfer
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed; prerequisite: Audition, department consent;
Instructor: Shaw, Paul Magnus
Description: Student may contact the instructor or department for information.

MUSA 1901 Piano: Music Major Transfer
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed; prerequisite: Audition, department consent;
Instructor: Aryniew, Lydia
Description: Student may contact the instructor or department for information.
MUSA 1901 Piano: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: Braginsky, Alexander  
Description: Student may contact the instructor or department for information.

MUSA 1902 Harpsichord: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: Billmeyer, Dean W  
Description: Student may contact the instructor or department for information.

MUSA 1903 Organ: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: Del Santo, Jean Marie  
Description: Student may contact the instructor or department for information.

MUSA 1904 Voice: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: Kierig, Barbara G  
Description: Student may contact the instructor or department for information.

MUSA 1904 Voice: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: Zabala, Adriana  
Description: Student may contact the instructor or department for information.

MUSA 1904 Voice: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: De Haan, John  
Description: Student may contact the instructor or department for information.

MUSA 1904 Voice: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: Zawisza, Philip David  
Description: Student may contact the instructor or department for information.

MUSA 1904 Voice: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: Bogorad, Julia A  
Description: Student may contact the instructor or department for information.

MUSA 1905 Violin: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: Hara, Burt T  
Description: Student may contact the instructor or department for information.

MUSA 1905 Violin: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: O'Reilly, Sally P  
Description: Student may contact the instructor or department for information.

MUSA 1906 Viola: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: Turner, Thomas  
Description: Student may contact the instructor or department for information.

MUSA 1907 Cello: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: Remenikova, Tanya  
Description: Student may contact the instructor or department for information.

MUSA 1908 Double Bass: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: Brown, Christopher Craig  
Description: Student may contact the instructor or department for information.

MUSA 1910 Saxophone: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: Fiterstein, Alexander  
Description: Student may contact the instructor or department for information.

MUSA 1911 Oboe: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: Konkol, Korey Bernard  
Description: Student may contact the instructor or department for information.

MUSA 1912 Clarinet: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;  
Instructor: Fitstein, Alexander  
Description: Student may contact the instructor or department for information.

MUSA 1913 Saxophone: Music Major Transfer  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed;  
prereq Audition, dept consent;
Instructor: Wyatt, Angela J.
Description: Student may contact the instructor or department for information.

MUSA 1913 Saxophone: Music Major Transfer
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed; 
prereq Audition, dept consent 
Instructor: Rousseau, Eugene E
Description: Student may contact the instructor or department for information.

MUSA 1914 Bassoon: Music Major Transfer
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed; 
prereq Audition, dept consent 
Instructor: Miller Jr, John W
Description: Student may contact the instructor or department for information.

MUSA 1915 French Horn: Music Major Transfer
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed; 
prereq Audition, dept consent 
Instructor: Lemen, Caroline May
Description: Student may contact the instructor or department for information.

MUSA 1916 Trumpet: Music Major Transfer
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed; 
prereq Audition, dept consent 
Instructor: Baldwin, David B
Description: Student may contact the instructor or department for information.

MUSA 1917 Trombone: Music Major Transfer
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed; 
prereq Audition, dept consent 
Instructor: Ashworth, Thomas Jackson
Description: Student may contact the instructor or department for information.

MUSA 1918 Euphonium: Music Major Transfer
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed; 
prereq Audition, dept consent 
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 1919 Tuba: Music Major Transfer
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed; 
prereq Audition, dept consent 
Instructor: Campbell, Steven C
Description: Student may contact the instructor or department for information.

MUSA 2301 Piano: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; 
prereq Audition, dept consent 
Instructor: Shaw, Paul Magnus
Description: Student may contact the instructor or department for information.

MUSA 2302 Harpsichord: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; 
prereq Audition, instr consent 
Instructor: Billmeyer, Dean W
Description: Student may contact the instructor or department for information.

MUSA 2303 Organ: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; 
prereq Audition, dept consent 
Instructor: Del Santo, Jean Marie
Description: Student may contact the instructor or department for information.

MUSA 2304 Voice: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; 
prereq Audition, dept consent 
Instructor: Zawisza, Philip David
Description: Student may contact the instructor or department for information.

MUSA 2304 Voice: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; 
prereq Audition, dept consent 
Instructor: Zaro-Mullins, Wendy
Description: Student may contact the instructor or department for information.

MUSA 2304 Voice: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; 
prereq Audition, dept consent 
Instructor: De Haan, John
Description: Student may contact the instructor or department for information.

MUSA 2304 Voice: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; 
prereq Audition, dept consent 
Instructor: Artymiw, Lydia
Description: Student may contact the instructor or department for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
MUSA 2305 Violin: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Kim, Young-Nam
Description: Student may contact the instructor or department for information.

MUSA 2305 Violin: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: O'Reilly, Sally P
Description: Student may contact the instructor or department for information.

MUSA 2305 Violin: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Bogorad, Julia A
Description: Student may contact the instructor or department for information.

MUSA 2305 Violin: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Brown, Christopher Craig
Description: Student may contact the instructor or department for information.

MUSA 2306 Viola: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Remenikova, Tanya
Description: Student may contact the instructor or department for information.

MUSA 2306 Viola: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Baldwin, David B
Description: Student may contact the instructor or department for information.

MUSA 2307 Cello: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Turner, Thomas
Description: Student may contact the instructor or department for information.

MUSA 2308 Double Bass: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Bogorad, Julia A
Description: Student may contact the instructor or department for information.

MUSA 2311 Oboe: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Snow, John D
Description: Student may contact the instructor or department for information.

MUSA 2312 Clarinet: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Fiterstein, Alexander
Description: Student may contact the instructor or department for information.

MUSA 2312 Clarinet: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Meffert-Nelson, Karinn Diane
Description: Student may contact the instructor or department for information.

MUSA 2312 Clarinet: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Hara, Burt T
Description: Student may contact the instructor or department for information.

MUSA 2313 Saxophone: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Wyatt, Angela J.
Description: Student may contact the instructor or department for information.

MUSA 2313 Saxophone: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Rousseau, Eugene E
Description: Student may contact the instructor or department for information.

MUSA 2313 Saxophone: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Miller Jr., John W
Description: Student may contact the instructor or department for information.

MUSA 2314 Bassoon: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Lemen, Caroline May
Description: Student may contact the instructor or department for information.

MUSA 2314 Bassoon: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Gast, Michael C
Description: Student may contact the instructor or department for information.

MUSA 2315 French Horn: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Bordner, Gary Alan
Description: Student may contact the instructor or department for information.

MUSA 2316 Trumpet: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Fiterstein, Alexander
Description: Student may contact the instructor or department for information.

MUSA 2316 Trumpet: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Meffert-Nelson, Karinn Diane
Description: Student may contact the instructor or department for information.

MUSA 2317 Trombone: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
Instructor: Ashworth, Thomas Jackson
Description: Student may contact the instructor or department for information.

MUSA 2318 Euphonium: Music Major
A-F only, 2-4 credit(s), max credits 16, 8 completions allowed; prereq Audition, dept consent ;
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Type</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Instructors</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSA 2321</td>
<td>Percussion: Music Major</td>
<td>A-F only, 2-4 credit(s), max credits 16, 8 completions</td>
<td>allowed; prereq Audition, dept consent</td>
<td>Instructor: Hey, Philip C</td>
<td></td>
</tr>
<tr>
<td>MUSA 2321</td>
<td>Percussion: Music Major</td>
<td>A-F only, 2-4 credit(s), max credits 16, 8 completions</td>
<td>allowed; prereq Audition, dept consent</td>
<td>Instructor: Meza, Fernando A.</td>
<td></td>
</tr>
<tr>
<td>MUSA 2322</td>
<td>Harp: Music Major</td>
<td>A-F only, 2-4 credit(s), max credits 16, 8 completions</td>
<td>allowed; prereq Audition, dept consent</td>
<td>Instructor: Kiene, Kathy</td>
<td></td>
</tr>
<tr>
<td>MUSA 2323</td>
<td>Guitar: Music Major</td>
<td>A-F only, 2-4 credit(s), max credits 16, 8 completions</td>
<td>allowed; prereq Audition, dept consent</td>
<td>Instructor: Fiegel, James F</td>
<td></td>
</tr>
<tr>
<td>MUSA 2301</td>
<td>Piano: Elective (non-major in music)</td>
<td>A-F only, 2-4 credit(s), max credits 16, 4 completions</td>
<td>allowed; prereq dept consent</td>
<td>Instructor: STAFF</td>
<td></td>
</tr>
<tr>
<td>MUSA 3103</td>
<td>Organ: Elective (non-major in music)</td>
<td>A-F only, 2-4 credit(s), max credits 16, 4 completions</td>
<td>allowed; prereq dept consent</td>
<td>Instructor: Billmeyer, Dean W</td>
<td></td>
</tr>
<tr>
<td>MUSA 3101</td>
<td>Piano: Elective (non-major in music)</td>
<td>A-F only, 2-4 credit(s), max credits 16, 4 completions</td>
<td>allowed; prereq dept consent</td>
<td>Instructor: Skovira, Katherine Anne</td>
<td></td>
</tr>
<tr>
<td>MUSA 3123</td>
<td>Guitar: Elective (non-major in music)</td>
<td>A-F only, 2-4 credit(s), max credits 16, 4 completions</td>
<td>allowed; prereq dept consent</td>
<td>Instructor: Tranter, John Harrington</td>
<td></td>
</tr>
<tr>
<td>MUSA 3104</td>
<td>Voice: Elective (non-major in music)</td>
<td>A-F only, 2-4 credit(s), max credits 16, 4 completions</td>
<td>allowed; prereq dept consent</td>
<td>Instructor: Grau, John Thomas</td>
<td></td>
</tr>
<tr>
<td>MUSA 3104</td>
<td>Voice: Elective (non-major in music)</td>
<td>A-F only, 2-4 credit(s), max credits 16, 4 completions</td>
<td>allowed; prereq dept consent</td>
<td>Instructor: Zawisza, Philip David</td>
<td></td>
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<tr>
<td>MUSA 3104</td>
<td>Voice: Elective (non-major in music)</td>
<td>A-F only, 2-4 credit(s), max credits 16, 4 completions</td>
<td>allowed; prereq dept consent</td>
<td>Instructor: Zaro-Mullins, Wendy</td>
<td></td>
</tr>
<tr>
<td>MUSA 3104</td>
<td>Voice: Elective (non-major in music)</td>
<td>A-F only, 2-4 credit(s), max credits 16, 4 completions</td>
<td>allowed; prereq dept consent</td>
<td>Instructor: Zawisza, Philip David</td>
<td></td>
</tr>
<tr>
<td>MUSA 3104</td>
<td>Voice: Elective (non-major in music)</td>
<td>A-F only, 2-4 credit(s), max credits 16, 4 completions</td>
<td>allowed; prereq dept consent</td>
<td>Instructor: Skovira, Katherine Anne</td>
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</tr>
<tr>
<td>MUSA 3123</td>
<td>Guitar: Elective (non-major in music)</td>
<td>A-F only, 2-4 credit(s), max credits 16, 4 completions</td>
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<td>Instructor: Tranter, John Harrington</td>
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<tr>
<td>MUSA 3123</td>
<td>Guitar: Elective (non-major in music)</td>
<td>A-F only, 2-4 credit(s), max credits 16, 4 completions</td>
<td>allowed; prereq dept consent</td>
<td>Instructor: Van, Jeffrey Wylie</td>
<td></td>
</tr>
<tr>
<td>MUSA 3123</td>
<td>Guitar: Elective (non-major in music)</td>
<td>A-F only, 2-4 credit(s), max credits 16, 4 completions</td>
<td>allowed; prereq dept consent</td>
<td>Instructor: Fiegel, James F</td>
<td></td>
</tr>
<tr>
<td>MUSA 3123</td>
<td>Guitar: Elective (non-major in music)</td>
<td>A-F only, 2-4 credit(s), max credits 16, 4 completions</td>
<td>allowed; prereq dept consent</td>
<td>Instructor: Meza, Fernando A.</td>
<td></td>
</tr>
</tbody>
</table>

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Class Schedule at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
MUSA 3301 Piano: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: Artyminiw,Lydia  
Description: Student may contact the instructor or department for information.

MUSA 3302 Harpsichord: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: Billmeyer,Dean W  
Description: Student may contact the instructor or department for information.

MUSA 3303 Organ: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: Billmeyer,Dean W  
Description: Student may contact the instructor or department for information.

MUSA 3304 Voice: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: Del Santo,Jean Marie  
Description: Student may contact the instructor or department for information.

MUSA 3304 Voice: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: Kiefer,Barbara G  
Description: Student may contact the instructor or department for information.

MUSA 3304 Voice: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: Zawisza,Philip David  
Description: Student may contact the instructor or department for information.

MUSA 3304 Voice: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: De Haan,John  
Description: Student may contact the instructor or department for information.

MUSA 3304 Voice: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: Zabala,Adriana  
Description: Student may contact the instructor or department for information.

MUSA 3305 Violin: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: Kim,Young-Nam  
Description: Student may contact the instructor or department for information.

MUSA 3305 Violin: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: O'Reilly,Sally P  
Description: Student may contact the instructor or department for information.

MUSA 3305 Violin: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: Bjork,Mark P  
Description: Student may contact the instructor or department for information.

MUSA 3306 Viola: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: Konkol,Korey Bernard  
Description: Student may contact the instructor or department for information.

MUSA 3306 Viola: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: Turner,Thomas  
Description: Student may contact the instructor or department for information.

MUSA 3307 Cello: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: Remenikova,Tanya  
Description: Student may contact the instructor or department for information.

MUSA 3308 Double Bass: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: Brown,Christopher Craig  
Description: Student may contact the instructor or department for information.

MUSA 3309 Flute: Music Major  
A-F only, 2-4 credit(s), max credits 24, 8 completions allowed; prereq Audition, dept consent  
Instructor: Bogorad,Julia A  
Description: Student may contact the instructor or department for information.

MUSA 3311 Oboe: Music Major  
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent  
Instructor: Snow,John D  
Description: Student may contact the instructor or department for information.

MUSA 3312 Clarinet: Music Major  
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent  
Instructor: Melfert-Nelson,Karrin Diane  
Description: Student may contact the instructor or department for information.

MUSA 3312 Clarinet: Music Major  
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent  
Instructor: Hara,Burt T  
Description: Student may contact the instructor or department for information.

MUSA 3312 Clarinet: Music Major  
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent  
Instructor: Fiterstein,Alexander  
Description: Student may contact the instructor or department for information.

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MUSA 3313 Saxophone: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Wyatt, Angela J.
Description: Student may contact the instructor or department for information.

MUSA 3313 Saxophone: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Rousseau, Eugene E
Description: Student may contact the instructor or department for information.

MUSA 3314 Bassoon: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Miller Jr, John W
Description: Student may contact the instructor or department for information.

MUSA 3314 Bassoon: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Ullery, Charles G
Description: Student may contact the instructor or department for information.

MUSA 3315 French Horn: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Lemen, Caroline May
Description: Student may contact the instructor or department for information.

MUSA 3315 French Horn: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Gast, Michael C
Description: Student may contact the instructor or department for information.

MUSA 3316 Trumpet: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Baldwin, David B
Description: Student may contact the instructor or department for information.

MUSA 3316 Trumpet: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Bordner, Gary Alan
Description: Student may contact the instructor or department for information.

MUSA 3317 Trombone: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Ashworth, Thomas Jackson
Description: Student may contact the instructor or department for information.

MUSA 3318 Euphonium: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 3319 Tuba: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition,dept consent;
Instructor: Campbell, Steven C
Description: Student may contact the instructor or department for information.

MUSA 3321 Percussion: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Hey, Philip C
Description: Student may contact the instructor or department for information.

MUSA 3321 Percussion: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Meza, Fernando A.
Description: Student may contact the instructor or department for information.

MUSA 3321 Percussion: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Kogan, Peter
Description: Student may contact the instructor or department for information.

MUSA 3322 Harp: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Billmeyer, Dean W
Description: Student may contact the instructor or department for information.

MUSA 3323 Guitar: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Van, Jeffrey Wylie
Description: Student may contact the instructor or department for information.

MUSA 3323 Guitar: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Kogan, Peter
Description: Student may contact the instructor or department for information.

MUSA 3323 Guitar: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Meza, Fernando A.
Description: Student may contact the instructor or department for information.

MUSA 3323 Guitar: Music Major
A-F only, 2-4 credit(s), max credits 24, 12 completions allowed; prereq Audition, dept consent;
Instructor: Hey, Philip C
Description: Student may contact the instructor or department for information.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>MUSA 5403</td>
<td>Organ: Music Major Secondary (graduate)</td>
<td>Billmeyer, Dean W</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8301</td>
<td>Piano: Music Major (graduate)</td>
<td>Shaw, Paul Magnus</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8301</td>
<td>Piano: Music Major (graduate)</td>
<td>Artymiw, Lydia</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8302</td>
<td>Harpsichord: Music Major (graduate)</td>
<td>Braginsky, Alexander</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8303</td>
<td>Organ: Music Major (graduate)</td>
<td>Billmeyer, Dean W</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8304</td>
<td>Voice: Music Major (graduate)</td>
<td>Del Santo, Jean Marie</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8304</td>
<td>Voice: Music Major (graduate)</td>
<td>Kierig, Barbara G</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8304</td>
<td>Voice: Music Major (graduate)</td>
<td>Zaro-Mullins, Wendy</td>
<td>Student may contact the instructor or department for information.</td>
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<tr>
<td>MUSA 8304</td>
<td>Voice: Music Major (graduate)</td>
<td>Zawisza, Philip David</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8305</td>
<td>Violin: Music Major (graduate)</td>
<td>Kim, Young-Nam</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8305</td>
<td>Violin: Music Major (graduate)</td>
<td>O'Reilly, Sally P</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8305</td>
<td>Violin: Music Major (graduate)</td>
<td>Bjork, Mark P</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8306</td>
<td>Viola: Music Major (graduate)</td>
<td>Konkol, Korey Bernard</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8306</td>
<td>Viola: Music Major (graduate)</td>
<td>Turner, Thomas</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8307</td>
<td>Cello: Music Major (graduate)</td>
<td>Remenikova, Tanya</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8308</td>
<td>Double Bass: Music Major (graduate)</td>
<td>Brown, Christopher Craig</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 8309</td>
<td>Flute: Music Major (graduate)</td>
<td>Bogorad, Julia A</td>
<td>Student may contact the instructor or department for information.</td>
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</tbody>
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A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Snow, John D
Description: Student may contact the instructor or department for information.

MUSA 8312 Clarinet: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Meffert-Nelson, Karrin Diane
Description: Student may contact the instructor or department for information.

MUSA 8312 Clarinet: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Hera, Burt T
Description: Student may contact the instructor or department for information.

MUSA 8312 Clarinet: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Fiterstein, Alexander
Description: Student may contact the instructor or department for information.

MUSA 8313 Saxophone: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Wyatt, Angela J
Description: Student may contact the instructor or department for information.

MUSA 8313 Saxophone: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Rousseau, Eugene E
Description: Student may contact the instructor or department for information.

MUSA 8314 Bassoon: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Miller, Jr., John W
Description: Student may contact the instructor or department for information.

MUSA 8314 Bassoon: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Ullery, Charles G
Description: Student may contact the instructor or department for information.

MUSA 8315 French Horn: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Gast, Michael C
Description: Student may contact the instructor or department for information.

MUSA 8315 French Horn: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Van, Jeffrey Wylie
Description: Student may contact the instructor or department for information.

MUSA 8316 Trumpet: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Baldwin, David B
Description: Student may contact the instructor or department for information.

MUSA 8316 Trumpet: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Bordner, Gary Alan
Description: Student may contact the instructor or department for information.

MUSA 8317 Trombone: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Ashworth, Thomas Jackson
Description: Student may contact the instructor or department for information.

MUSA 8318 Euphonium: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 8319 Tuba: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Hey, Philip C
Description: Student may contact the instructor or department for information.

MUSA 8321 Percussion: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Meza, Fernando A.
Description: Student may contact the instructor or department for information.

MUSA 8321 Percussion: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Kogan, Peter
Description: Student may contact the instructor or department for information.

MUSA 8322 Harp: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Kienzle, Kathy
Description: Student may contact the instructor or department for information.

MUSA 8323 Guitar: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Lovelace, Timothy
Description: Student may contact the instructor or department for information.

MUSA 8324 Accompanying/Coaching: Music Major (graduate)
A-F only, 2-4 credit(s), max credits 48, 24 completions allowed; prereq Audition, dept consent; Instructor: Blixt, David
Description: Student may contact the instructor or department for information.

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MUED 3302 General Music II  
A-F only, 3 credit(s); prereq 3301 with a grade of at least C-;  
Instructor: Addo PhD,Akosua O  
Description: Welcome to MUED3302, a course designed to prepare you with materials, strategies and an extensive field experience with expert general music teachers to plan and implement instruction for global arts understanding in general music. Taking this course will, through experiential learning, prepare you to integrate international music and culture perspectives while planning and implementing sequential, elementary music instruction. To be enrolled in this course, you must have completed MUED 3301 General Music Methods I.  
Grading: 20% reflection paper.

MUED 3415 Choral Conducting and Methods I  
A-F only, 4 credit(s); prereq MUS 3502, MUS 3512, [music education major or music therapy major or instr consent], successful completion of soph proficiency exam;  
Instructor: Hamann,Keitha Lucas  
Description: Student may contact the instructor or department for information.

MUED 3419 Advanced Conducting and Repertoire (Choral)  
A-F only, 2 credit(s); prereq 3416, MUS 3401, MUS 3502, MUS 3512, music education major [choral];  
Instructor: Meaffey,Matt Wayne  
Description: Student may contact the instructor or department for information.

MUED 3516 Instrumental Methods and Conducting I  
A-F only, 4 credit(s); prereq MUS 3502, MUS 3512, music education major, successful completion of soph proficiency exam, dept consent;  
Instructor: Sindberg,Laura K  
Description: Student may contact the instructor or department for information.

MUED 3519 Advanced Conducting and Repertoire (Instrumental)  
A-F only, 2 credit(s); prereq 3517, MUS 3502, MUS 3512, music education major, dept consent;  
Instructor: Luckhardt,Jerry M  
Description: Student may contact the instructor or department for information.

MUED 3802 Guitar I for Music Education and Music Therapy Majors: Developing Group Songleading Skills  
A-F only, 2 credit(s); prereq [Music therapy or music education major], dept consent;  
Instructor: Schwartzberg,Edward Todd  
Description: Student may contact the instructor or department for information.

MUED 5011 Music in the Elementary Classroom Curriculum  
2-3 credit(s), max credits 3, 1 completion allowed; prereq Elem Ed major or dept consent;  
Instructor: STAFF  
Description: This course is designed to prepare pre-service teachers with materials and strategies to plan and integrate multi-cultural music instruction for elementary school children. Students will need a tuning fork = A, soprano recorder with Baroque-English fingering and one blank VHS videotape. Students will sing, play instruments, sight read and conduct. Style: 20% Lecture, 40% Discussion, 40% Laboratory.  
Grading: 5% final exam, 20% quizzes, 40% in-class presentation, 15% class participation, 20% problem solving.  
Exam Format: Essay

MUED 5350 Student Teaching in Classroom Music  
A-F only, 4-8 credit(s), max credits 8, 1 completion allowed;  
Instructor: Addo PhD,Akosua O  
Description: Welcome to a wonderful experience in the real world of teaching. My colleagues and I would like this to be a very positive experience for you. This course experience is designed to give you an opportunity to discuss the challenges and triumphs of learning to teach in elementary general music. Sign up for MuEd5650 Student Teaching seminar for course discussions, debriefing sessions and interactions with other professionals who will assist in your transition to the world of public school teaching. Please remember that the triangle of responsibility during student teaching falls on the shoulders of the student teacher, the university supervisor and cooperating teacher. As university supervisors we are here to trouble shoot and facilitate a fulfilling relationship between you and your cooperating teacher. If during this process, you are having any concerns about your placement, it is important that you let us know sooner than later.

MUED 5450 Student Teaching in Vocal Music  
A-F only, 4-8 credit(s), max credits 8, 1 completion allowed;  
Instructor: Hamann,Keitha Lucas  
Description: Student may contact the instructor or department for information.

MUED 5550 Student Teaching in Instrumental Music  
A-F only, 4-8 credit(s), max credits 8, 1 completion allowed;  
Instructor: Sindberg,Laura K  
Description: Student may contact the instructor or department for information.

MUED 5569 Psychology of Music  
A-F only, 3 credit(s); prereq Psy 1001 or Psy 3604 or instr consent;  
Instructor: Lipscomb,Scott D.  
Description: Student may contact the instructor or department for information.

MUED 5750 Topics in Music Education: Multimedia Development for the Web  
A-F only, 3 credit(s), max credits 16, 4 completions allowed;  
Instructor: Schwartzberg,Edward Todd  
Description: Student may contact the instructor or department for information.

MUED 5803 Therapeutic Management in Music Settings  
A-F only, 4 credit(s); prereq [5804, 5805] or instr consent;  
Instructor: Silverman,Michael J  
Description: Student may contact the instructor or department for information.

MUED 5804 Music Therapy Methods and Procedures I  
A-F only, 4 credit(s); prereq 5800 or instr consent Credit will not be granted if the student has already completed MuEd 3804;  
Instructor: Schwartzberg,Edward Todd  
Description: Student may contact the instructor or department for information.

MUED 5807 Psychiatric Music Therapy  
A-F only, 3-4 credit(s), max credits 4, 1 completion allowed;  
Instructor: Silverman,Michael J  
Description: Student may contact the instructor or department for information.
MUED 5855 Music Therapy Internship
S-N only, 0-13 credit(s), max credits 13, 1 completion allowed; prereq Music therapy major, instr consent. Credit will not be granted if the student has already completed MuEd 3855;
Instructor: Silverman, Michael J
Description: Student may contact the instructor or department for information.

MUED 8118 Qualitative Research in Arts Education
A-F only, 3 credit(s); prereq Grad student in [arts or education], dept consent;
Instructor: Addo PhD, Akosua O
Description: Student may contact the instructor or department for information.

MUED 8280 Seminar: Current Trends in Music Education
A-F only, 3 credit(s), max credits 30, 10 completions allowed; prereq dept consent;
Instructor: Hamann, Keitha Lucas
Description: Student may contact the instructor or department for information.

MUED 8900 Seminar: Music Education Doctoral Seminar
A-F only, 1 credit(s), max credits 8, 8 completions allowed; prereq dept consent;
Instructor: Lipscomb, Scott D.
Description: Student may contact the instructor or department for information.

NAV 1000 Professional Training in Naval Science
S-N only, 1 credit(s); prereq enrolled in NROTC;
Instructor: Fitzsimmons, Cameron Ann
Description: Student may contact the instructor or department for information.

NAV 1101 Introduction to Naval Science
A-F only, 3 credit(s);
Instructor: Hudgins, Gralon
Description: Student may contact the instructor or department for information.

NAV 2000 Professional Training in Naval Science
S-N only, 1 credit(s); prereq Soph enrolled in NROTC;
Instructor: Fitzsimmons, Cameron Ann
Description: Student may contact the instructor or department for information.

NAV 2201 Ship Systems I: Naval Engineering
A-F only, 3 credit(s);
Instructor: Siedsma, Michael J
Description: Student may contact the instructor or department for information.

NAV 3000 Professional Training in Naval Science
S-N only, 1 credit(s); prereq Jr enrolled in NROTC;
Instructor: Fitzsimmons, Cameron Ann
Description: Student may contact the instructor or department for information.

NAV 3302 Navigation II: Seamanship and Ship Operations
A-F only, 3 credit(s); prereq 3301;
Instructor: Schaefer, Crystal Lynn
Description: Student may contact the instructor or department for information.

NAV 4000 Professional Training in Naval Science
S-N only, 1 credit(s); prereq Sr enrolled in NROTC;
Instructor: Fitzsimmons, Cameron Ann
Description: Student may contact the instructor or department for information.

NAV 4401W Leadership and Management I
A-F only, 3 credit(s); Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

NAV 4410 Amphibious Warfare
A-F only, 3 credit(s);
Instructor: Fitzsimmons, Cameron Ann
Description: Student may contact the instructor or department for information.

Neurology
12-100 Phillips Wangensteen Bldg (Box 295 UMHC)

NEUR 5230 Cerebrovascular Hemodynamics and Diseases I
A-F only, 4 credit(s); prereq [[PHSL 3051 or PHSL 3063], [MATH 1271 or MATH 1371], [MATH 1272 or MATH 1372], [PHYS 1201W or PHYS 1301W], instr consent ] or [grad student, [PHSL 5061 or instr consent ]];
Instructor: Divani, Afshin Andre
Description: Student may contact the instructor or department for information.

Neuroscience
6-145 Jackson Hall

NSC 5031W Perception
3 credit(s); prereq Psy 3031 or Psy 3051 or instr consent;
Credit will not be granted if credit has been received for: PSY 5031W; Meets CLE req of Writing Intensive;
Instructor: Legge, Gordon Ernest
Description: Student may contact the instructor or department for information.

NSC 5201 Computational Neuroscience I: Membranes and Channels
3 credit(s); prereq calculus through differential equations;
Credit will not be granted if credit has been received for: PHSL 5201;
Instructor: Miller, Robert F
Description: Student may contact the instructor or department for information.

NSC 5203 Neuroscience of Vision
A-F only, 3 credit(s); prereq instr consent;
Instructor: Miller, Robert F
Description: Student may contact the instructor or department for information.

NSC 5461 Cellular and Molecular Neuroscience
A-F only, 4 credit(s); prereq NSc grad student or instr consent;
Instructor: Newman, Eric A
Description: Goals of the course: 1) To understand the principles of cellular and molecular neuroscience that underlie the function of cells in the nervous system. 2) To study key molecules in the nervous system and learn how they determine cellular properties. 3) To understand the basic principles of neurophysiology and cell biology that underlie cell signaling and communication in the nervous system. 4) To learn about molecular, genetic, cellular, and electrophysiological approaches to studying the nervous system in health and disease. 5) To learn how to read the primary literature critically and to give effective oral presentations. 6) To learn how to write a concise
review of a scientific topic based on primary journal articles.

<table>
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<tr>
<th>Course Code</th>
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NSCI 4105 Neurobiology Laboratory I
A-F only, 3 credit(s); prereq 3101; instr consent will not be granted if credit received for: 3105, Biol 3105, Biol 4105, Phsl 3105;
Instructor: Branton,W Dale
Description: This course serves as an introduction to the principles, methods, and laboratory exercises for investigating neural mechanisms and examining experimental evidence. This course constitutes a part of the core curriculum for Neuroscience majors and is designed to supplement and reinforce the objectives of NSc 3101 by emphasizing experimental approaches to understanding the brain. The course will provide an introduction to the development and structure of the vertebrate brain and the various experimental techniques available for this study. Topics include: Comparative gross and cell anatomy of invertebrate and vertebrate nervous systems; gross dissection of fish and mammalian brains; use of experimental histochemistry and fluorescent tracers to study brain circuitry, neurons and synaptic connections in the rat brain; small animal surgery and microdissection; use of fluorescent, confocal and dissecting microscopes; use of stereotaxic brain atlas. Students can expect 4 hours of laboratory and 2 hours for preparation and analysis per week. The main theme of the course is to learn by observation. The specific observations you make will be mostly self-directed and guided by a written assignment each week. There will be only a limited number of specific exercises with detailed instructions, the rest will depend on your initiative.
Style: 5% Lecture, 95% Laboratory.
Grading: 50% reports/papers, 20% class participation, 30% other evaluation. Final oral presentation of laboratory project will be required in order to present the most current information that has become familiar with neuroscience through the BrainU program offered through the Department of Neuroscience. Over the course of the semester students will observe and assist in the middle school classroom in the implementation of already developed neuroscience activities. Students will choose a basic concept in an area of neuroscience in which they will develop an expertise and make an oral presentation. Students will then design and implement a new classroom activity to teach concepts in that area of neuroscience to middle school learners. By partnering with a middle school teacher and assisting in his/her classroom, the student participates in a service learning experience. Credit hours are proportional to the number of hours spent in the middle school classroom. 1 credit for every 50 hr. Weekly meetings with the instructor, journaling, and readings are required for all credit levels.
Style: Field work in service learning.
Grading: 30% in-class presentation, 30% other evaluation. Classroom activities and interactions; 25% teach evaluation of classroom activities and interactions; 15% journal surveys and field reports.

NSCI 4793W Directed Studies: Writing Intensive
A-F only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; no more than 7 cr of [4793, 4794, 4993, 4994] may count toward major requirements; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Individual study of selected topics with emphasis on readings and use of scientific literature. This course is writing intensive. Students will have the opportunity to write a review article on a topic in their discipline of interest. They will learn to survey the current literature in a specific area of research, organize the data available relevant to the research topic, and effectively communicate this information in their paper. Also, students will draw conclusions from their investigations of the research topic and suggest directions for future research. Students are required to write a 10-15 page paper in the format of a scientific review article. An extensive survey of the literature will be required in order to present the most current information in the selected research area. This course is graded pass/fail, and the final grade is based on successful completion of the review article.
Grading: 100% reports/papers.

NSCI 4993 Directed Studies
A-F only, 3 credit(s); prereq 3101; instr consent will not be granted if credit received for: 3105, Biol 3105, Biol 4105, Phsl 3105;
Instructor: Dubinsky,Janet M
Description: This course serves as an introduction to the principles, methods, and laboratory exercises for investigating neural mechanisms and examining experimental evidence. This course constitutes a part of the core curriculum for Neuroscience majors and is designed to supplement and reinforce the objectives of NSc 3101 and 3102 by emphasizing experimental approaches to understanding the brain. The course will provide an introduction to the development and structure of the vertebrate brain and the various experimental techniques available for this study. Topics include: Comparative gross and cell anatomy of invertebrate and vertebrate nervous systems; gross dissection of fish and mammalian brains; use of experimental histochemistry and fluorescent tracers to study brain circuitry, neurons and synaptic connections in the rat brain; small animal surgery and microdissection; use of fluorescent, confocal and dissecting microscopes; use of stereotaxic brain atlas. The class will discuss, develop and practice teamwork and problem solving skills. Students can expect 4 hours of laboratory and 2 hours for preparation and analysis per week. The main theme of the course is to learn by observation. The specific observations you make will be mostly self-directed and guided by short and long term class projects. There will be only a limited number of specific exercises with detailed instructions, the rest

NSCI 4167 Neuroscience in the Community
A-F only, 1-3 credit(s); prereq instr consent;
Instructor: Dubinsky,Janet M
Description: Students will be responsible for developing an experiment or inquiry-based activity to illustrate a basic neuroscience concept for a middle school science classroom. Students will be paired with a middle school science teacher who has become familiar with neuroscience through the BrainU program offered through the Department of Neuroscience. Over the course of the semester students will observe and assist in the middle school classroom in the implementation of already developed neuroscience activities. Students will choose a basic concept in an area of neuroscience in which they will develop an expertise and make an oral presentation. Students will then design and implement a new classroom activity to teach concepts in that area of neuroscience to middle school learners. By partnering with a middle school teacher and assisting in his/her classroom, the student participates in a service learning experience. Credit hours are proportional to the number of hours spent in the middle school classroom. 1 credit for every 50 hr. Weekly meetings with the instructor, journaling, and readings are required for all credit levels.
Style: Field work in service learning.
Grading: 30% in-class presentation, 30% other evaluation. Classroom activities and interactions; 25% teach evaluation of classroom activities and interactions; 15% journal surveys and field reports.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
S-N only, 1-7 credit(s), max credits 7, 7 completions allowed; prereq instr consent, dept consent; max of 7 cr of 4993 and/or 4994 may count toward major requirements; Instructor: STAFF
Description: Student may contact the instructor or department for information.

NOR 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent, dept consent; max of 7 cr of 4993 and/or 4994 may count toward major requirements; Instructor: STAFF
Description: Student may contact the instructor or department for information.

Norwegian
192 Klaeber Court

NOR 1001 Beginning Norwegian
5 credit(s); Credit will not be granted if credit has been received for: NOR 4001;
Instructor: STAFF
Description: This is the first course in the first-year language instruction sequence (1001-2), designed to develop a basic communicative proficiency in Norwegian. Students will practice the four language skills (speaking, writing, reading, and listening) and learn to handle simple, everyday transactions. Class sessions will emphasize interactive communicative activities in pairs and small groups, with a focus on improving listening and speaking skills. Additional class time will be spent on reading, writing, and grammar. Students are expected to practice these skills outside of class as well. Learning about life and culture in Norway is an integral part of the course. See description for Nor 1003 for an option for qualified students to register for this course for 2 credits (and lower tuition) instead of 4 credits.
Style: 10% Lecture, 70% Discussion, 20% Laboratory.
Grading: 50% reports/papers, 50% other evaluation. oral/aural
Exam Format: structured exercises in all 4 modalities and grammar, pronunciation, vocabulary and culture

NOR 1003 Intermediate Norwegian
5 credit(s); prereq 1002; Credit will not be granted if credit has been received for: NOR 4003;
Instructor: STAFF
Description: This course continues the presentation of Norwegian language skills begun in 1001-2 (or quarter courses 1101-2-3). At this level, students will be reading and listening to more advanced authentic Norwegian material and will expand and refine vocabulary and knowledge of grammar. The 1003-4 course sequence will prepare students for the Graduation Proficiency Test (GPT) that will be taken toward the end of 1004. Students will practice the four language skills (speaking, writing, reading, and listening). Class sessions will emphasize interactive communicative activities in pairs and small groups; additional class time will be spent on reading, writing, and grammar. Students are expected to practice these skills outside of class as well. Learning about life and culture in Norway is an integral part of the course. See the description for Nor 4003 for an option for qualified students to register for this course for 2 credits (and lower tuition) instead of 4 credits.
Style: 10% Lecture, 70% Discussion, 20% Laboratory.
Grading: 50% reports/papers, 50% other evaluation. oral/aural
Exam Format: written essays, listening and reading protocols, structural exercises, oral interviews

NOR 4001 Beginning Norwegian
2 credit(s); prereq 1004 in another language or passing score on LPE or grad student; Credit will not be granted if credit has been received for: NOR 1001;
Instructor: STAFF
Description: See the course description for Nor 1001. This 4xxx-level course designator is a special option for qualified students to take the 1xxx-level course for reduced credits. If you have already passed the Graduation Proficiency Test (GPT) in another language or are a graduate student or are not seeking a CLA degree, you may register for Nor 1001 under the number Nor 4001 for 2 credits. Contact the department office, (612) 625-2080, for permission.

NOR 4003 Intermediate Norwegian
2 credit(s); prereq 1004 in another language or passing score on LPE or grad student; Credit will not be granted if credit has been received for: NOR 1003;
Instructor: STAFF
Description: See the course description for Nor 1003. This 4xxx-level course designator is a special option for qualified students to take the 1xxx-level course for reduced credits. If you have already passed the Graduation Proficiency Test (GPT) in another language or are a graduate student or are not seeking a CLA degree, you may register for Nor 1003 under the number Nor 4003 for 2 credits. Contact the department office, (612) 625-2080, for permission.

Nursing
6-101 Weaver-Densford Hall

NURS 1020 Challenge of Nursing
S-N only, 1 credit(s);
Instructor: Rowan, Mary M.
Description: Student may contact the instructor or department for information.

NURS 1030 Profession of Nursing Seminar
A-F only, 1 credit(s); prereq Nursing fr guarantee student, instr consent;
Instructor: Alaniz, Karin Lue
Description: Student may contact the instructor or department for information.

NURS 2001 Human Growth and Development: A Life Span Approach
3 credit(s);
Instructor: Alaniz, Karin Lue
Description: Theoretical, personal and culturally determined views of human life span development are examined from the prenatal period through the dying experience. Grand and emergent theories are applied to the biosocial, cognitive and psychosocial domains of life span development.
Style: 90% Lecture, 5% Film/Video, 5% Small Group Activities.
Grading: 20% reports/papers, 60% quizzes, 20% attendance.

NURS 3115 Health Informatics and Information Technology
A-F only, 3 credit(s); prereq Undergrad or instr consent;
Meets CLE req of Technology and Society;
Instructor: Kerr, Madeleine June
Description: Student may contact the instructor or department for information.

NURS 3690 Life Span, Growth, and Development I
2 credit(s); prereq One general psychology and one general biology course or instr consent;
Instructor: Davis PhD, Joan Audray
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit “Class URL” for ODL policies, including fee and financial aid restrictions. This course uses a life span perspective to explore transitions and changes from conception through early adulthood. It provides students with a broad background in human growth and development across the life span. Nurses and other health care professionals need to understand normal development in order to effectively help people deal with health problems. This course provides a good foundation for further study in a specialty area, and many students will choose to take additional courses that deal with specific developmental periods. The course will appeal
to a broad range of students who are interested in learning about the biosocial, cognitive, and psychosocial forces that shape human lives.

Style: This is a printed correspondence section.

Grading: written assignments = 80 points, midterm exam = 60 points, final exam = 60 points.

Exam Format: Supervised, in-person exams.

NURS 3691 Life Span, Growth, and Development II
1 credit(s); prereq: 3690, one general psychology and one general biology course or instructor consent;
Instructor: Davis PhD, Joan Audray
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. In this course we use a life span perspective to explore transitions and changes in middle and late adult development. The course provides students with a broad background in human growth and development across the life span. Nurses and other health care professionals need to understand normal development in order to effectively help people deal with health problems. This course provides a good foundation for further study in a specialty area, and many students will choose to take additional courses that deal with specific developmental periods. This course will appeal to a broad range of students who are interested in learning about the biosocial, cognitive, and psychosocial forces that shape human lives.

Style: This is a printed correspondence section.

Grading: 60% final exam, 40% written homework. If you register for the S/N grade option, your average must be at least 70% to receive an S (satisfactory). We encourage prenursing and nursing students to take the course A-F if they want to have the course count in their accumulated GPA.

Exam Format: Supervised, in-person (not online) exam.

NURS 3703 Assessment and Beginning Interventions: Nursing Lab 1
A-F only, 2 credit(s); prereq: Enrolled School of Nursing, at least soph semester I;
Instructor: Rowan, Mary M.
Description: Student may contact the instructor or department for information.

NURS 3703 Assessment and Beginning Interventions: Nursing Lab 1
A-F only, 2 credit(s); prereq: Enrolled School of Nursing, at least soph semester I;
Instructor: Flaten, Carol
Description: Student may contact the instructor or department for information.

NURS 3703 Assessment and Beginning Interventions: Nursing Lab 1
A-F only, 2 credit(s); prereq: Enrolled School of Nursing, at least soph semester I;
Instructor: Rhudy, Lori M
Description: Student may contact the instructor or department for information.

NURS 3710 Statistics for Clinical Practice and Research
3 credit(s); prereq: High school algebra or instructor consent;
Meets CLE req of Mathematical Thinking;
Instructor: Findorff, Mary Jocelyn
Description: Student may contact the instructor or department for information.

NURS 3710 Statistics for Clinical Practice and Research
3 credit(s); prereq: High school algebra or instructor consent;
Meets CLE req of Mathematical Thinking;
Instructor: Herrick, Linda Marie
Description: Student may contact the instructor or department for information.

NURS 3801 Patient Centered Care of Adults/Older Adults I
A-F only, 4 credit(s); prereq: Admitted to Nurs BSN program;
Instructor: Steffes, Mary Teresa
Description: Student may contact the instructor or department for information.

NURS 3801 Patient Centered Care of Adults/Older Adults I
A-F only, 4 credit(s); prereq: Admitted to Nurs BSN program;
Instructor: Rhudy, Lori M
Description: Student may contact the instructor or department for information.

NURS 3802 Nursing Care of Families I
A-F only, 4 credit(s); prereq: Enrolled in School of Nursing;
Instructor: Larson, Karin J
Description: Student may contact the instructor or department for information.

NURS 3806 Nurse as Professional
A-F only, 2 credit(s); prereq: Admitted to nursing BSN program;
Instructor: Herrick, Linda Marie
Description: Student may contact the instructor or department for information.

NURS 3806 Nurse as Professional
A-F only, 2 credit(s); prereq: Admitted to nursing BSN program;
Instructor: Rowan, Mary M.
Description: Student may contact the instructor or department for information.

NURS 4201 Nursing Care of Adults
A-F only, 6 credit(s);
Instructor: Dunlap, Karen J
Description: Student may contact the instructor or department for information.

NURS 4201 Nursing Care of Adults
A-F only, 6 credit(s);
Instructor: Darst, Elaine
Description: Student may contact the instructor or department for information.

NURS 4203 Nursing Fundamentals II: Assessment and Intervention
A-F only, 3 credit(s); prereq: Nursing student or instructor consent;
Instructor: Dunlap, Karen J
Description: Student may contact the instructor or department for information.

NURS 4205W Nursing Theory and Research
A-F only, 3 credit(s); prereq: Undergrad in nursing; Meets CLE req of Writing Intensive;
Instructor: Lindquist, Ruth Ann
Description: Student may contact the instructor or department for information.

NURS 4205W Nursing Theory and Research
A-F only, 3 credit(s); prereq: Undergrad in nursing; Meets CLE req of Writing Intensive;
Instructor: Painter, Patricia
Description: Student may contact the instructor or department for information.

NURS 4320 Psychiatric and Mental Health Nursing
A-F only, 5 credit(s);
Instructor: Darst, Elaine
Description: Prerequisite: Nursing Student Develop skill in assessment of biopsychosocial needs, develop a holistic plan of care, help client negotiate care, and evaluate client outcomes. Students will establish therapeutic relationships with clients experiencing psychiatric illnesses using self as a therapeutic tool in promoting mental health. Prerequisites: Enrolled as Nursing Student in the School of Nursing.

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NURS 4800 Nursing Topics
0-16 credit(s), max credits 48, 3 completions allowed; prereq
instr consent ;
Instructor: Dean,Patrick Joseph
Description: Student may contact the instructor or department for information.

NURS 4800 Nursing Topics
1 credit(s), max credits 48, 3 completions allowed; prereq
Instr consent ;
Instructor: Duckett,Laura J
Description: Student may contact the instructor or department for information.

NURS 5010 Foundations of Interprofessional Communication and Collaboration
S-N only, 1 credit(s); prereq Nursing MN or DNP student;
Instructor: Schadewald,Diane Marie
Description: Student may contact the instructor or department for information.

NURS 5016 Critical Reading of Scientific Literature in Adolescent Health
1 credit(s); prereq [Grad-level research methods course, inferential statistics course] or instr consent;
Instructor: Sieving,Renee Evangeline
Description: Student may contact the instructor or department for information.

NURS 5030 Clinical Foundations
A-F only, 7 credit(s), max credits 21, 3 completions allowed; prereq Admission to postbaccalaureate certificate nursing program;
Instructor: Chlan,Linda Lee
Description: Student may contact the instructor or department for information.

NURS 5034 Clinical Seminar: Nursing Care of Clients With Complex Health Conditions
A-F only, 4 credit(s); prereq Nursing postbaccalaureate certificate program or master of nursing program;
Instructor: Frisvold,Melissa Hanner
Description: Student may contact the instructor or department for information.

NURS 5035 Practical Nursing Care for Complex Health Conditions
A-F only, 4 credit(s); prereq Nursing postbaccalaureate certificate program or master of nursing program;
Instructor: Friedrich,Cheri L
Description: Student may contact the instructor or department for information.

NURS 5035 Practical Nursing Care for Complex Health Conditions
A-F only, 4 credit(s); prereq Nursing postbaccalaureate certificate program or master of nursing program;
Instructor: Ringdahl,Deborah Rene
Description: Student may contact the instructor or department for information.

NURS 5035 Practical Nursing Care for Complex Health Conditions
A-F only, 4 credit(s); prereq Nursing postbaccalaureate certificate program or master of nursing program;
Instructor: Steffes,Mary Teresa
Description: Student may contact the instructor or department for information.

NURS 5035 Practical Nursing Care for Complex Health Conditions
A-F only, 4 credit(s); prereq Nursing postbaccalaureate certificate program or master of nursing program;
Instructor: Sieving,Renee Evangeline
Description: Student may contact the instructor or department for information.

NURS 5040H Seeking Solutions to Global Health Issues
A-F only, 3 credit(s); prereq Grad student or upper div honors or instr consent ; Meets CLE req of Global Perspectives;
Instructor: Halcon PhD,Linda Luciente
Description: Student may contact the instructor or department for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
NURS 5115 Interprofessional Health Care Informatics  
A-F only, 3 credit(s);  
Instructor: Kerr,Madeleine June  
Description: Student may contact the instructor or department for information.

NURS 5115 Interprofessional Health Care Informatics  
A-F only, 3 credit(s);  
Instructor: Clancy,Thomas R  
Description: Student may contact the instructor or department for information.

NURS 5116 Consumer Self-Care Informatics  
1-2 credit(s), max credits 2, 1 completion allowed; prereq Nursing student or instr consent;  
Instructor: Westra,Bonnie L.  
Description: Student may contact the instructor or department for information.

NURS 5117 Consumer Health Informatics Practicum  
S-N only, 1 credit(s); prereq [Grad student, [5116 or Concurrent registration is required (or allowed) in 5116]] or instr consent;  
Instructor: Westra,Bonnie L.  
Description: Student may contact the instructor or department for information.

NURS 5190 Essentials of Holistic Health Assessment  
A-F only, 3 credit(s); prereq Admission to MN Program;  
Instructor: Short,Gwen  
Description: Student may contact the instructor or department for information.

NURS 5205 Comprehensive Assessment of the Older Adults  
A-F only, 3 credit(s); prereq Grad student, instr consent;  
Instructor: Wyman,Jean Frances  
Description: Student may contact the instructor or department for information.

NURS 5222 Advanced Physiology  
3 credit(s);  
Instructor: Anderson,Lisa Carney  
Description: Student may contact the instructor or department for information.

NURS 5228 Pharmacology for Advanced Practice Nursing  
A-F only, 2 credit(s); prereq Grad nursing student or instr consent;  
Instructor: Lichtblau PhD,Leonard  
Description: Student may contact the instructor or department for information.

NURS 5241 Nursing Leadership for Effective Practice  
A-F only, 3 credit(s); prereq Final sem of MN Program;  
Instructor: Friedrich,Cheri L  
Description: Student may contact the instructor or department for information.

NURS 5830 Advanced Clinical Nursing  
1-6 credit(s), max credits 6, 1 completion allowed; prereq Grad nursing major, instr consent;  
Instructor: Rowan,Mary M.  
Description: Student may contact the instructor or department for information.

NURS 5995 Research Dissemination  
2 credit(s); prereq Doctoral student or instr consent;  
Instructor: Henly,Susan J  
Description: Student may contact the instructor or department for information.

NURS 6100 Evidence-based Practice  
A-F only, 3 credit(s); prereq Admission to DNP Program;  
Instructor: Hadidi,Niloufar Niakosari  
Description: Student may contact the instructor or department for information.

NURS 6100 Evidence-based Practice  
A-F only, 3 credit(s); prereq Admission to DNP Program;  
Instructor: Rhudy,Lori M  
Description: Student may contact the instructor or department for information.

NURS 6305 Women's Reproductive Healthcare  
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed; prereq 5200, 5222, 5228, 5229, DNP student;  
Instructor: Schadewald,Diane Marie  
Description: Student may contact the instructor or department for information.

NURS 6306 Women's Reproductive Healthcare Practicum  
S-N only, 1-6 credit(s), max credits 6, 4 completions allowed; prereq 5200, 5222, 5228, 5229, 6305 or Concurrent registration is required (or allowed) in 6305, DNP student;  
Instructor: Ringdahl,Deborah Rene  
Description: Student may contact the instructor or department for information.

NURS 6405 Advanced Practice CNS Roles Across the Lifespan  
A-F only, 3 credit(s); prereq 5200, 7103, 7900;  
Instructor: Zaccagnini, Mary E  
Description: Student may contact the instructor or department for information.

NURS 6501 Assessment and Management of Health for Advanced Practice Nurses I  
A-F only, 3 credit(s); prereq DNP student or instr consent;  
Instructor: Schadewald,Diane Marie  
Description: Student may contact the instructor or department for information.

NURS 6604 Foundations for Integrative Mental Health and Psychiatric Advanced Nursing Practice  
3 credit(s); prereq 5200, 5222, 5224, 5228, CSH 5101;  
Instructor: Kaas, Merrie Jean  
Description: Student may contact the instructor or department for information.

NURS 6702 Executive Leadership Seminar  
S-N only, 3 credit(s); prereq Grad student or instr consent;  
Instructor: Herrick, Linda Marie  
Description: Student may contact the instructor or department for information.

NURS 6901 Basic Principles and Practice of Nurse Anesthesia for the Doctorate of Nursing Practice Student  
A-F only, 2 credit(s); prereq 6800;  
Instructor: Peterson,Garrett Joel  
Description: Student may contact the instructor or department for information.

NURS 6930 Foundations of Advanced Public Health Nursing Practice  
A-F only, 3 credit(s); prereq DNP grad student in public health nursing;  
Instructor: Olson Keller,Linda  
Description: Student may contact the instructor or department for information.

NURS 6935 Population Focused Public Health Nursing Practice: Program Planning and Development  
A-F only, 2 credit(s); prereq 6934, 7300;  
Instructor: Findorff, Mary Jocelyn  
Description: Student may contact the instructor or department for information.

NURS 7000 DNP Proseminar  
1 credit(s); prereq Admission to Post-BSN Doctorate of Nursing Practice Program;  
Instructor: Chesney PhD, Mary L  
Description: Student may contact the instructor or department for information.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
<th>Prerequisite</th>
<th>Credits</th>
<th>Notes</th>
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<tbody>
<tr>
<td>NURS 7001</td>
<td>DNP Postbaccalaureate Seminar I</td>
<td>Schadewald, Diane Marie</td>
<td>S-N only, 3 credits(s); prerequisite 7000, admission to postbaccalaureate DNP;</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<td>NURS 7100 DNP Seminar I</td>
<td>S-N only, 4 credits(s); prerequisite Admission to DNP program;</td>
<td>Schadewald, Diane Marie</td>
<td>Instructor: Schadewald, Diane Marie; S-N only, 1-2 credit(s), max credits 2, 1 completion allowed; prerequisite 5200, 5222, 5224, 5229, 6501;</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<td>NURS 7108</td>
<td>Population Health Informatics</td>
<td>Monsen, Karen A</td>
<td>Instructor: Monsen, Karen A; S-N only, 1-6 credit(s), max credits 6; prerequisite 5115 or [HINF 5430, HINF 5431]; or instructor consent;</td>
<td>2-6</td>
<td>Instructor: Monsen, Karen A; S-N only, 1-6 credit(s), max credits 6; prerequisite 5115 or [HINF 5430, HINF 5431]; or instructor consent;</td>
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<tr>
<td>NURS 7109</td>
<td>Population Health Informatics Practicum</td>
<td>Monsen, Karen A</td>
<td>Instructor: Monsen, Karen A; S-N only, 1-6 credit(s), max credits 6; prerequisite 5115 or [7106 or Concurrent registration is required (or allowed) in 7108 or [HINF 5430, HINF 5431]); or instructor consent;</td>
<td>2-6</td>
<td>Instructor: Monsen, Karen A; S-N only, 1-6 credit(s), max credits 6; prerequisite 5115 or [HINF 5430, HINF 5431]; or instructor consent;</td>
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<td>NURS 7202</td>
<td>Moral and Ethical Positions and Actions in Nursing</td>
<td>Duckett, Laura J</td>
<td>Instructor: Duckett, Laura J; A-F only, 2 credit(s); prerequisite Grad student in nursing or instructor consent;</td>
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<td>Instructor: Duckett, Laura J; A-F only, 2 credit(s); prerequisite Grad student in nursing or instructor consent;</td>
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<td>NURS 7300</td>
<td>Program Evaluation</td>
<td>Dean, Patrick Joseph</td>
<td>Instructor: Dean, Patrick Joseph; S-N only, 1-6 credit(s), max credits 6; prerequisite 5115 or [HINF 5430, HINF 5431]; or instructor consent;</td>
<td>3</td>
<td>Instructor: Dean, Patrick Joseph; S-N only, 1-6 credit(s), max credits 6; prerequisite 5115 or [HINF 5430, HINF 5431]; or instructor consent;</td>
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<td>NURS 7504</td>
<td>Assessment and Management of Health for Advanced Practice Nurses, Practicum I</td>
<td>Tailey, Kristine Marie</td>
<td>Instructor: Tailey, Kristine Marie; S-N only, 1-2 credit(s), max credits 2, 1 completion allowed; prerequisite 5200, 5222, 5224, 5229, 6501;</td>
<td>2</td>
<td>Instructor: Tailey, Kristine Marie; S-N only, 1-2 credit(s), max credits 2, 1 completion allowed; prerequisite 5200, 5222, 5224, 5229, 6501;</td>
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<td>NURS 7610</td>
<td>Health Innovations and Leadership</td>
<td>Henly, Susan J</td>
<td>Instructor: Henly, Susan J; A-F only, 3 credit(s); prerequisite Grad student or instructor consent;</td>
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<td>Instructor: Henly, Susan J; A-F only, 3 credit(s); prerequisite Grad student or instructor consent;</td>
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<tr>
<td>NURS 8121</td>
<td>Health Behaviors and Illness Responses</td>
<td>Liaschenko, Joan</td>
<td>Instructor: Liaschenko, Joan; S-N only, 1 credit(s); prerequisite Doctoral student; or instructor consent;</td>
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<td>Instructor: Liaschenko, Joan; S-N only, 1 credit(s); prerequisite Doctoral student; or instructor consent;</td>
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<td>NURS 8172</td>
<td>Theory and Theory Development for Research</td>
<td>Peden, McAlpine, Cynthia Jeanne</td>
<td>Instructor: Peden, McAlpine, Cynthia Jeanne; A-F only, 3 credit(s); prerequisite [8170 or equiv], [8xxx statistics or Concurrent registration is required (or allowed) in 8xxx]; or instructor consent;</td>
<td>3</td>
<td>Instructor: Peden, McAlpine, Cynthia Jeanne; A-F only, 3 credit(s); prerequisite [8170 or equiv], [8xxx statistics or Concurrent registration is required (or allowed) in 8xxx]; or instructor consent;</td>
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<td>NURS 8175</td>
<td>Quantitative Research Design and Methods</td>
<td>Looman, Wendy Sue</td>
<td>Instructor: Looman, Wendy Sue; A-F only, 3 credit(s); prerequisite [8170 or equiv], [8xxx statistics or Concurrent registration is required (or allowed) in 8xxx]; or instructor consent;</td>
<td>3</td>
<td>Instructor: Looman, Wendy Sue; A-F only, 3 credit(s); prerequisite [8170 or equiv], [8xxx statistics or Concurrent registration is required (or allowed) in 8xxx]; or instructor consent;</td>
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<td>NURS 8180</td>
<td>Doctoral Proseminar I: Scholarly Development</td>
<td>Wyman, Jean Frances</td>
<td>Instructor: Wyman, Jean Frances; S-N only, 1 credit(s); prerequisite Doctoral nursing student; or instructor consent;</td>
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<td>Instructor: Wyman, Jean Frances; S-N only, 1 credit(s); prerequisite Doctoral nursing student; or instructor consent;</td>
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<td>NURS 8193</td>
<td>Special Topics in Nursing Research</td>
<td>Schadewald, Diane Marie</td>
<td>Instructor: Schadewald, Diane Marie; S-N only, 1-2 credit(s), max credits 2, 1 completion allowed; prerequisite 5200, 5222, 5224, 5229, 6501;</td>
<td>2-6</td>
<td>Instructor: Schadewald, Diane Marie; S-N only, 1-2 credit(s), max credits 2, 1 completion allowed; prerequisite 5200, 5222, 5224, 5229, 6501;</td>
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<td>NURS 8194</td>
<td>Problems in Nursing - Plan B</td>
<td>Monsen, Karen A</td>
<td>Instructor: Monsen, Karen A; S-N only, 1-2 credit(s), max credits 2, 1 completion allowed; prerequisite 5200, 5222, 5224, 5229, 6501;</td>
<td>1-6</td>
<td>Instructor: Monsen, Karen A; S-N only, 1-2 credit(s), max credits 2, 1 completion allowed; prerequisite 5200, 5222, 5224, 5229, 6501;</td>
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<td>Course Code</td>
<td>Course Name</td>
<td>Credits</td>
<td>Prerequisites</td>
<td>Instructor(s)</td>
<td>Description</td>
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<td>NURS 8452</td>
<td>Primary Care Practicum: Common Acute and Chronic Health Conditions Affecting Children</td>
<td>2 credits</td>
<td>prereq 8411, 8442, concurrent enrollment in 8452</td>
<td>Herrick, Linda Marie</td>
<td>Student may contact the instructor or department for information.</td>
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<td>NURS 8503</td>
<td>Nurse-Midwifery Care of the Childbearing Family</td>
<td>1-10 credits</td>
<td>Max credits 30, 3 completions allowed</td>
<td>Monsen, Karen A</td>
<td>Student may contact the instructor or department for information.</td>
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<tr>
<td>NURS 8520</td>
<td>Advanced Concepts in Women's Health for the Nurse Practitioner</td>
<td>2-8 credits</td>
<td>Max credits 20, 2 completions allowed</td>
<td>Nygaard, Georgia Gayle</td>
<td>Student may contact the instructor or department for information.</td>
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<td>NUTR 8621</td>
<td>Presentation Skills</td>
<td>1 credit</td>
<td>prereq Dept consent</td>
<td>Poe, Christine R</td>
<td>Student may contact the instructor or department for information.</td>
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<tr>
<td>NUTR 8695</td>
<td>Independent Study: Nutrition</td>
<td>1-10 credits</td>
<td>Max credits 30, 3 completions allowed</td>
<td>O'Conner-Von, Susan K.</td>
<td>Student may contact the instructor or department for information.</td>
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<tr>
<td>OT 1003</td>
<td>Orientation to Occupational Therapy</td>
<td>2 credits</td>
<td>Max credits 80, 4 completions allowed</td>
<td>Cariad-Barrett, Anna</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
</tbody>
</table>
OT 6200 Public and Professional Engagement II
S-N only, 0.5 credit(s), max credits 1.5, 3 completions allowed; prereq 6100 or instr consent;
Instructor: Martin PhD, Peggy Mae
Description: Student may contact the instructor or department for information.

OT 6201 Occupational Therapy Process for Community
A-F only, 3 credit(s);
Instructor: Jones, Terrianne Thielen
Description: Student may contact the instructor or department for information.

OT 6202 Public and Professional Engagement II
S-N only, 0.5 credit(s), max credits 1.5, 3 completions allowed; prereq 6100 or instr consent;
Instructor: Martin PhD, Peggy Mae
Description: Student may contact the instructor or department for information.

OT 6401 Occupational Therapy Process for Individuals: Occupation Through Neurorehabilitative Approaches
A-F only, 4 credit(s); prereq Registered OT student or instr consent;
Instructor: Stern PhD, Erica Beth
Description: Student may contact the instructor or department for information.
**Operations and Management Sciences**

3-140 Carlson School of Management

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**Ojibwe**

19 Scott Hall

**OJIB 3103 Intermediate Ojibwe I**

5 credit(s); prereq 1101, 1102; Credit will not be granted if credit has been received for: OJIB 3103;

**OMS 3550 National Student Exchange: Off-Campus Study**

S-N only, 1-15 credit(s), max credits 15, 3 completions allowed; S-N only, 0 credit(s), max credits 15, 3 completions allowed; prereq dept consent;

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**OMS 2550 Business Statistics: Data Sources, Presentation, and Analysis**

A-F only, 4 credit(s); prereq [Math 1031 or equiv], at least 30 cr credit will not be granted if credit received for: 1550; Credit will not be granted if credit has been received for: OMS 2550H;

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**OMS 3001 Introduction to Operations Management**

A-F only, 3 credit(s);

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**OMS 3045 Sourcing and Supply Management**

A-F only, 2 credit(s);

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**OMS 3051 Service Management**

A-F only, 2 credit(s);
U.S. GDP and provide billions of dollars in trade surplus. There is a continual need for new services, higher quality services, and more efficient services. In this course, we study many service industries - health care, retail, banking, professional services. We tackle issues unique to managing service organizations. Identifying service needs, designing servicescapes, and managing queues, and - most importantly - managing the people who deliver and consume services. That is, we study the employees, the customers, how to manage them, and how to create the 'right' experience for each and every one.

OMS 3056 Supply Chain Planning and Control
A-F only, 4 credit(s); prereq 3001 or instr consent; 
Instructor: STAFF
Description: Concepts and principles related to designing, controlling, and improving production and inventory management systems throughout the supply chain. Topics include capacity planning, inventory planning, production planning, forecasting methods, Materiel Requirements Planning (MRP), Just-in-Time, and theory of constraints.

OMS 3059 Quality Management and Lean Six Sigma
A-F only, 4 credit(s); prereq 3001 or equiv or instr consent; 
Instructor: STAFF
Description: Planning and organizing performance improvement of processes, products, and services; Six Sigma process management systems; quality aspects of product/service design; quality determination cost, customer/vendor relations; process control; quality control; management of improvement process; and organizational assessment of quality. Introduction to concepts relevant to service/manufacturing.

OMS 3061 Lean Thinking
A-F only, 2 credit(s); prereq 3001; 
Instructor: Shah, Rachna
Description: Student may contact the instructor or department for information.

OMS 3072 Managing Technologies in the Supply Chain
A-F only, 2 credit(s); prereq 3001; 
Instructor: Sinha, Kingshuk Kantil
Description: Student may contact the instructor or department for information.

OMS 6041 Project Management
A-F only, 2 credit(s); prereq [MBA 6220 or equiv], MBA student; 
Instructor: Siemens, Enno
Description: Student may contact the instructor or department for information.

OMS 6051 Service Management
A-F only, 2 credit(s); prereq [MBA 6220 or equiv], MBA student; 
Instructor: Goldstein, Susan Meyer
Description: Each of us consumes services and cares about how they are delivered. Services generate nearly 80% of the U.S. GDP and provide billions of dollars in trade surplus. There is a continual need for new services, higher quality services, and more efficient services. In this course, we study many service industries - health care, retail, banking, professional services. We tackle issues unique to managing service organizations. Identifying service needs, designing servicescapes, and managing queues, and - most importantly - managing the people who deliver and consume services. That is, we study the employees, the customers, how to manage them, and how to create the 'right' experience for each and every one.

OMS 6059 Quality Management and Lean Six Sigma
A-F only, 4 credit(s); prereq [MBA 6220 or equiv], MBA student; 
Instructor: Linderman, Kevin Wayne
Description: Student may contact the instructor or department for information.

OMS 6081 Operations Strategy
A-F only, 2 credit(s); prereq [MBA 6220 or equiv], MBA student; 
Instructor: McConnell, Brian W
Description: Student may contact the instructor or department for information.

OMS 6082 International Operations Management
A-F only, 2 credit(s); prereq [MBA 6220 or equiv], MBA student; 
Instructor: McConnell, Brian W
Description: Student may contact the instructor or department for information.

OMS 8711 Research in Operations Strategy
A-F only, 3 credit(s), max credits 4, 1 completion allowed; 
prereq Business admin PhD student or instr consent; 
offered alt yrs; 
Instructor: Goldstein, Susan Meyer
Description: Student may contact the instructor or department for information.

OMS 8745 Research on Quality Management
A-F only, 3 credit(s), max credits 4, 1 completion allowed; 
prereq Business admin PhD student or instr consent; 
offered alt yrs; 
Instructor: Rungtusanatham PhD, M. Johnny
Description: Student may contact the instructor or department for information.

Oral Biology
15-209 MoosT

OBIO 5001 Methods in Research and Writing
2 credit(s); 
Instructor: Herzberg, Mark C
Description: Student may contact the instructor or department for information.

OBIO 8026 Salivary Glands and Secretions
A-F only, 2 credit(s); prereq Dental specialist or oral research trainee or instr consent; 
Instructor: Rudney, Joel David
Description: Student may contact the instructor or department for information.

OBIO 8030 Oral Biology Seminar
S-N only, 1 credit(s), max credits 10, 10 completions allowed; 
prereq Dental specialist or oral research trainee or instr consent; 
Instructor: Herzberg, Mark C
Description: Student may contact the instructor or department for information.

OBIO 8093 Tutorial in Oral Biology
S-N only, 1-2 credit(s), max credits 2, 1 completion allowed; 
prereq instr consent; 
Instructor: Herzberg, Mark C
Description: Student may contact the instructor or department for information.

OBIO 8094 Directed Research
S-N only, 1-10 credit(s), max credits 10, 1 completion allowed; 
prereq instr consent; 
Instructor: Herzberg, Mark C
Description: Student may contact the instructor or department for information.

Oral and Maxillofacial Surgery
7-174 MoosT
OSUR 5257 Ambulatory General Anesthesia for the Oral and Maxillofacial Surgeon
S-N only, 0-6 credit(s), max credits 6, 1 completion allowed;
prereq Participation in oral and maxillofacial surgery training program;
Instructor: Hughes,Pamela Jean
Description: Student may contact the instructor or department for information.

OSUR 5276 Medicine Rotation for the Oral and Maxillofacial Surgeon
S-N only, 0-6 credit(s), max credits 6, 1 completion allowed;
prereq Participation in oral and maxillofacial surgery training program;
Instructor: Hughes,Pamela Jean
Description: Student may contact the instructor or department for information.

OSUR 8250 Oral and Maxillofacial Surgery Rotation for the Oral and Maxillofacial Surgeon
S-N only, 0-6 credit(s), max credits 6, 1 completion allowed;
prereq Participation in oral and maxillofacial surgery training program;
Instructor: Hughes,Pamela Jean
Description: Student may contact the instructor or department for information.

OSUR 8253 Case Presentations and Chief Conferences
S-N only, 0-5 credit(s), max credits 5, 1 completion allowed;
prereq Participation in oral and maxillofacial surgery training program;
Instructor: Hughes,Pamela Jean
Description: Student may contact the instructor or department for information.

OSUR 8255 General Surgery Rotation for the Oral and Maxillofacial Surgeon
S-N only, 0-6 credit(s), max credits 6, 1 completion allowed;
prereq Participation in oral and maxillofacial surgery training program;
Instructor: Hughes,Pamela Jean
Description: Student may contact the instructor or department for information.

OSUR 8256 Contemporary Anesthesia Literature Review
S-N only, 0-6 credit(s), max credits 6, 1 completion allowed;
prereq Participation in oral and maxillofacial surgery training program;
Instructor: Hughes,Pamela Jean
Description: Student may contact the instructor or department for information.

OSUR 8260 Surgical Rounds for the Oral and Maxillofacial Surgeon
S-N only, 0-6 credit(s), max credits 6, 1 completion allowed;
prereq Participation in oral and maxillofacial surgery training program;
Instructor: Hughes,Pamela Jean
Description: Student may contact the instructor or department for information.

OSUR 8267 Anesthesia Rotation for the Oral and Maxillofacial Surgeon
S-N only, 0-6 credit(s), max credits 6, 1 completion allowed;
prereq Participation in oral and maxillofacial surgery training program;
Instructor: Hughes,Pamela Jean
Description: Student may contact the instructor or department for information.

OTHO 7102 Growth & Development
A-F only, 0-5 credit(s), max credits 5, 1 completion allowed;
Instructor: Beyer,John Paul
Description: Student may contact the instructor or department for information.

OTHO 7112 Diagnosis & Treatment Planning
A-F only, 0-5 credit(s), max credits 5, 1 completion allowed;
prereq Admission to graduate orthodontic program;
Instructor: Vayda,Patricia Macchiarul
Description: Student may contact the instructor or department for information.

OTHO 7202 Clinical Orthodontics
A-F only, 0-5 credit(s), max credits 5, 1 completion allowed;
prereq Admission to graduate orthodontic program;
Instructor: Speidel,T Michael
Description: Student may contact the instructor or department for information.

OTHO 8122 Orthodontic Seminar
A-F only, 0-5 credit(s), max credits 5, 1 completion allowed;
prereq Orthodontic grad student;
Instructor: Pliska DDS,MS,Benjamin T
Description: Student may contact the instructor or department for information.

OTHO 8132 Topics in Orthodontics
A-F only, 0-5 credit(s), max credits 5, 1 completion allowed;
prereq Orthodontic grad student;
Instructor: Hughes,Pamela Jean
Description: Student may contact the instructor or department for information.

OTHO 8142 Research in Orthodontics
A-F only, 0-5 credit(s), max credits 5, 1 completion allowed;
prereq Orthodontic grad student;
Instructor: Pliska DDS,MS,Benjamin T
Description: Student may contact the instructor or department for information.

Otolaryngology
8-240 PWB (Mayo Mail Code 396)

OTOL 5101 Introduction to the Basic Sciences in Otolaryngology I: Ear
A-F only, 2 credit(s); prereq Otolaryngology major or instr consent;
Instructor: Daly,Kathleen A
Description: Student may contact the instructor or department for information.

OTOL 5102 Introduction to the Basic Sciences in Otolaryngology II: Head and Neck
A-F only, 2 credit(s); prereq Otolaryngology major or instr consent;
Instructor: Lassman,Frank M
Description: Student may contact the instructor or department for information.

OTOL 8230 Clinical Otorhinolaryngology
A-F only, 4 credit(s); prereq Grad otol major;
Instructor: Yueh,Bevan
Description: Student may contact the instructor or department for information.

OTOL 8231 Surgery of the Ear, Nose, and Throat
A-F only, 3 credit(s); prereq Grad otol major;
Instructor: Yueh,Bevan
Description: Student may contact the instructor or department for information.

OTOL 8232 Maxillofacial Surgery

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
A-F only, 1 credit(s); prereq Grad otol major;
Instructor: Hilger, Peter A
Description: Student may contact the instructor or department for information.

OTOL 8233 Plastic and Reconstructive Surgery: Head and Neck
A-F only, 1 credit(s); prereq Otol major;
Instructor: Hilger, Peter A
Description: Student may contact the instructor or department for information.

OTOL 8234 Anatomy of the Head and Neck and Temporal Bone Dissection
2 credit(s); prereq Grad otol major or instr consent;
Instructor: Huang, Tina Chung Ting
Description: Student may contact the instructor or department for information.

OTOL 8237 Endoscopy
A-F only, 1 credit(s), max credits 12, 12 completions allowed; prereq Grad otol major;
Instructor: Goding, George S
Description: Student may contact the instructor or department for information.

OTOL 8239 Otoneurology
1-2 credit(s), max credits 12, 12 completions allowed; prereq Grad otol major or instr consent;
Instructor: Anderson, John Harold
Description: Student may contact the instructor or department for information.

OTOL 8240 Allergy
A-F only, 1 credit(s), max credits 12, 12 completions allowed; prereq Grad otol major;
Instructor: Boyer MD, Holly C
Description: Student may contact the instructor or department for information.

OTOL 8241 Cancer of the Head and Neck
A-F only, 1 credit(s), max credits 12, 12 completions allowed; prereq Grad otol major;
Instructor: Yueh, Bevan
Description: Student may contact the instructor or department for information.

OTOL 8242 Audiology and Speech Pathology
2 credit(s); prereq Grad otol major or instr consent;
Instructor: Michael, Deirdre D.
Description: Student may contact the instructor or department for information.

OTOL 8243 Introduction to Research Methodology
1 credit(s); prereq Grad otol major or instr consent;
Instructor: Daly, Kathleen A
Description: Student may contact the instructor or department for information.

OTOL 8248 Directed Readings in Auditory Physiology
1-2 credit(s), max credits 2, 1 completion allowed; prereq instr consent; Credit will not be granted if credit has been received for: NSC 8248;
Instructor: Anderson, John Harold
Description: Student may contact the instructor or department for information.

OTOL 8249 Current Topics in Cochlear Anatomy
1 credit(s); prereq instr consent;
Instructor: Santl, Peter A
Description: Student may contact the instructor or department for information.

OTOL 8250 Advanced Biochemistry of the Auditory System
1 credit(s); prereq MdBc 6100, MdBc 6101 or equiv or instr consent;
Instructor: Juhn, Steven Kung
Description: Student may contact the instructor or department for information.

OTOL 8262 Advanced Clinical Audiology
2 credit(s); prereq Grad otol major, 8242 or instr consent;
Instructor: Margolis, Robert H
Description: Student may contact the instructor or department for information.

PDEN 7000 Directed Research in Pediatric Dentistry
S-N only, 1 credit(s);
Instructor: Grothe, Ron
Description: Student may contact the instructor or department for information.

PDEN 7100 Advanced Clinical Pediatric Dentistry
A-F only, 1-5 credit(s), max credits 5, 1 completion allowed;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

PDEN 7200 Advanced Pediatric Dentistry Techniques
A-F only, 2 credit(s);
Instructor: STAFF
Description: Student may contact the instructor or department for information.

PDEN 8010 Pediatric Dentistry and Treatment Planning
A-F only, 1 credit(s);
Instructor: Grothe, Ron
Description: Student may contact the instructor or department for information.

PDEN 8031 Independent Pediatric Dentistry Study
2 credit(s);
Instructor: Grothe, Ron
Description: Student may contact the instructor or department for information.

PDEN 8100 Hospital Pediatric Dentistry
S-N only, 1 credit(s);
Instructor: Grothe, Ron
Description: Student may contact the instructor or department for information.

PDEN 8110 Hospital Pediatric Dentistry II
S-N only, 3 credit(s);
Instructor: Grothe, Ron
Description: Student may contact the instructor or department for information.

PED 7091 Independent Study in the Neural Basis of Anger, Tantrums, and Aggression
A-F only, 2 credit(s); prereq instr consent;
Instructor: Potegal, Michael
Description: Student may contact the instructor or department for information.

Persian
PHM 8481 Advanced Neuropharmaceutics
A-F only, 4 credit(s); prereq instr consent ; Credit will not be granted if credit has been received for: CMB 8481;
Instructor: Fairbanks,Carolyn Ann
Description: Student may contact the instructor or department for information.

PHCL 8320 Readings in Neurobiology
1-4 credit(s), max credits 4, 4 completions allowed; prereq instr consent ;
Instructor: Fairbanks,Carolyn Ann

PHCL 8320 Problems in Investigative Pharmacology
S-N only, 1 credit(s);
Instructor: Loh,Horace H
Description: Student may contact the instructor or department for information.

PHCL 8217 Problems in Investigative Pharmacology
S-N only, 1 credit(s);
Instructor: Loh,Horace H
Description: Student may contact the instructor or department for information.

PHCL 8207 Seminar: Psychopharmacology
1 credit(s); prereq instr consent; Credit will not be granted if credit has been received for: NSC 8207;
Instructor: Wilcox,George L
Description: Student may contact the instructor or department for information.

PHCL 8208 Neuropsychopharmacology
A-F only, 3 credit(s); prereq [5212, 6112, Psy 5021, Psy 5061] or instr consent ;
Instructor: Roy,Sabita
Description: Student may contact the instructor or department for information.

PHCL 8200 Seminar: Selected Topics in Pharmacology
1 credit(s), max credits 8, 8 completions allowed; prereq 6112 or instr consent;
Instructor: Walseth,Timothy F
Description: Student may contact the instructor or department for information.

PHCL 8211 Pharmacology
A-F only, 2 credit(s); prereq 5210 or instr consent;
Instructor: Thayer,Stanley A
Description: Student may contact the instructor or department for information.

PHCL 5210 Introduction to Pharmacology
A-F only, 3 credit(s); prereq Grad student or instr consent;
Instructor: Campbell,Colin R
Description: Research projects and special problems by arrangement.

PHCL 5110 Problems in Pharmacology
1-18 credit(s), max credits 18, 1 completion allowed; prereq Upper div or grad student or instr consent;
Instructor: Loh,Horace H
Description: This introductory course is highly appropriate for those students interested in health sciences research, medicine, or the pharmaceutical industry. In our modern society, drug-based strategies are the predominant and often the most effective way to treat disease. This course presents many of the fundamental concepts that define the discipline of Pharmacology by focusing on the derivation of a drug-based strategy to treat a single medical condition. This semester's course will be centered on the development of novel anti-cancer drugs and is designed to be interactive, with both written and oral components. Additional Info: Please contact course directors directly or visit the website: Class URL: http://www.pharmacology.med.umn.edu/PHCL4001.html

PHCL 5109 Problems in Pharmacology
1-18 credit(s), max credits 18, 1 completion allowed; prereq Upper div or grad student or instr consent;
Instructor: Loh,Horace H

PHCL 5100 Mechanisms of Drug Action
A-F only, 2 credit(s); prereq Upper div or instr consent; [prev or concurrent] courses in [biology, biochemistry] recommended;
Instructor: Connell,Gregory James
Description: This introductory course is highly appropriate for those students interested in health sciences research, medicine, or the pharmaceutical industry. In our modern society, drug-based strategies are the predominant and often the most effective way to treat disease. This course presents many of the fundamental concepts that define the discipline of Pharmacology by focusing on the derivation of a drug-based strategy to treat a single medical condition. This semester's course will be centered on the development of novel anti-cancer drugs and is designed to be interactive, with both written and oral components. Additional Info: Please contact course directors directly or visit the website: Class URL: http://www.pharmacology.med.umn.edu/PHCL4001.html

PHM 8103 Intermediate Persian
3 credit(s); prereq 4102, grad student; Credit will not be granted if credit has been received for: PERS 3101;
Instructor: Sadrai,Mahmoud
Description: Student may contact the instructor or department for information.

PHM 8100 Seminar: Pharmaceutics
S-N only, 1 credit(s), max credits 4, 4 completions allowed; prereq Grad Phm major;
Instructor: Sun,Calvin
Description: Student may contact the instructor or department for information.

PHM 8110 Readings in Pharmaceutics
S-N only, 1 credit(s), max credits 4, 4 completions allowed; prereq Grad Phm major;
Instructor: Siegel,Ronald Alan
Description: Student may contact the instructor or department for information.

PHM 8120 Readings in Central Nervous System (CNS) Drug Delivery
S-N only, 1 credit(s), max credits 4, 4 completions allowed; prereq instr consent ;
Instructor: Fairbanks,Carolyn Ann
Description: Student may contact the instructor or department for information.

PHM 8150 Pharmacokinetics Research Seminar
S-N only, 1 credit(s), max credits 12, 12 completions allowed; prereq Grad Phm major; Credit will not be granted if credit has been received for: PHAR 6223;
Instructor: Einquilist,William Frederick
Description: Student may contact the instructor or department for information.

PERS 1101 Beginning Persian I
3 credit(s); prereq Grad student; Credit will not be granted if credit has been received for: PERS 1101;
Instructor: Sadrai,Mahmoud
Description: Student may contact the instructor or department for information.

PERS 4103 Intermediate Persian
3 credit(s); prereq 4102, grad student; Credit will not be granted if credit has been received for: PERS 3101;
Instructor: Sadrai,Mahmoud
Description: Student may contact the instructor or department for information.

PHM 8120 Readings in Central Nervous System (CNS) Drug Delivery
S-N only, 1 credit(s), max credits 4, 4 completions allowed; prereq instr consent ;
Instructor: Fairbanks,Carolyn Ann
Description: Student may contact the instructor or department for information.

PHM 8100 Seminar: Pharmaceutics
S-N only, 1 credit(s), max credits 4, 4 completions allowed; prereq Grad Phm major;
Instructor: Sun,Calvin
Description: Student may contact the instructor or department for information.

PHM 8110 Readings in Pharmaceutics
S-N only, 1 credit(s), max credits 4, 4 completions allowed; prereq Grad Phm major;
Instructor: Siegel,Ronald Alan
Description: Student may contact the instructor or department for information.

PHM 8120 Readings in Central Nervous System (CNS) Drug Delivery
S-N only, 1 credit(s), max credits 4, 4 completions allowed; prereq instr consent ;
Instructor: Fairbanks,Carolyn Ann
Description: Student may contact the instructor or department for information.

PHM 8150 Pharmacokinetics Research Seminar
S-N only, 1 credit(s), max credits 12, 12 completions allowed; prereq Grad Phm major; Credit will not be granted if credit has been received for: PHAR 6223;
Instructor: Einquilist,William Frederick
Description: Student may contact the instructor or department for information.

PHM 8481 Advanced Neuropharmaceutics
A-F only, 4 credit(s); prereq instr consent ; Credit will not be granted if credit has been received for: CMB 8481;
Instructor: Fairbanks,Carolyn Ann
Description: Student may contact the instructor or department for information.

PERS 1101 Beginning Persian I
3 credit(s); prereq 1102 or instr consent ; Credit will not be granted if credit has been received for: PERS 4103;
Instructor: Sadrai,Mahmoud
Description: Student may contact the instructor or department for information.

PERS 4101 Beginning Persian
3 credit(s); prereq Grad student; Credit will not be granted if credit has been received for: PERS 1101;
Instructor: Sadrai,Mahmoud
Description: Student may contact the instructor or department for information.

PHM 8100 Seminar: Pharmaceutics
S-N only, 1 credit(s), max credits 4, 4 completions allowed; prereq Grad Phm major;
Instructor: Sun,Calvin
Description: Student may contact the instructor or department for information.

PHM 8110 Readings in Pharmaceutics
S-N only, 1 credit(s), max credits 4, 4 completions allowed; prereq Grad Phm major;
Instructor: Siegel,Ronald Alan
Description: Student may contact the instructor or department for information.

PHM 8120 Readings in Central Nervous System (CNS) Drug Delivery
S-N only, 1 credit(s), max credits 4, 4 completions allowed; prereq instr consent ;
Instructor: Fairbanks,Carolyn Ann
Description: Student may contact the instructor or department for information.

PHM 8150 Pharmacokinetics Research Seminar
S-N only, 1 credit(s), max credits 12, 12 completions allowed; prereq Grad Phm major; Credit will not be granted if credit has been received for: PHAR 6223;
Instructor: Einquilist,William Frederick
Description: Student may contact the instructor or department for information.

PHM 8481 Advanced Neuropharmaceutics
A-F only, 4 credit(s); prereq instr consent ; Credit will not be granted if credit has been received for: CMB 8481;
Instructor: Fairbanks,Carolyn Ann
Description: Student may contact the instructor or department for information.

PERS 1101 Beginning Persian I
3 credit(s); prereq 1102 or instr consent ; Credit will not be granted if credit has been received for: PERS 4103;
Instructor: Sadrai,Mahmoud
Description: Student may contact the instructor or department for information.
PHAR 1001 Orientation to Pharmacy
2 credit(s);
Instructor: Lounsbery, Jody Leigh
Description: This is not a self-study course. While it is completely online, there are deadlines for assignments and assessments throughout the semester. No late registrations will be accepted. This course is designed for students seeking an overview of the profession of pharmacy, including the pharmaceutical care practice model, various pharmacy settings, pharmacy education and current opportunities and challenges within the profession. Students use WebVista to view audio-narrated presentations and download handout materials (also available for purchase). Course information is sent to the U of M email addresses of registered students shortly before, and/or on, the first day of classes each Fall, Spring, and Summer term. For more information, see course website or contact pharinr@umn.edu or 612-625-4148.

PHAR 1002 Health Sciences Terminology
2 credit(s); prereq -
Description: This self-study, unlimited enrollment course has no prerequisites. It provides undergraduate students with introductory knowledge of health sciences terminology through a programmed learning approach. Students learn how to analyze and build words by using combining forms, suffixes, and prefixes in a systematic manner. This working knowledge of the medical language serves as a basis for further course work in the health sciences and/or enhances job skills in a wide variety of fields. The mandatory course orientation is completed entirely online. Course information is sent to registered students U of M email addresses shortly before, and/or on, the first day of classes each Fall semester, Spring semester, and 8-week Summer term. For more information on this flexible course, explore the course website and/or contact medterm@umn.edu or 612-624-7976.
Style: self-study with regularly scheduled in-person testing sessions
Grading: average of scores for 4 exams
Exam Format: multiple choice and true/false

PHAR 1003 Non-Prescription Medications and Self-Care: Treating Minor Conditions
2 credit(s);
Instructor: Kast, Nicole M
Description: This self-study, unlimited enrollment online course for undergraduate and professional students provides information related to nonprescription medications and appropriate self care. Knowledge gained empowers students to become informed consumers of over-the-counter medications and testing devices. Examples of course topics include vitamins, herbal products, pain relievers and cold medications. Non-drug treatments for minor illnesses are also discussed. Textbook is supplemented with online course work. Students use Vista to: view audio-narrated powerpoint presentations, download handout materials (also available for purchase), and complete self tests in preparation for exams. The required course orientation is completed online. Course information is sent to registered students U of M email addresses shortly before, and/or on, the first day of classes each Fall semester, Spring semester, and 8-week Summer term. For more information on this flexible course, explore the course website and/or contact selfcare@umn.edu or 612-624-7976.
Style: self-study, with regularly scheduled in-person testing sessions.
Grading: 100% other evaluation. average of 4 exam scores
Exam Format: Multiple choice and true/false

PHAR 1004 Common Prescription Drugs and Diseases
2 credit(s);
Instructor: Pittenger, Amy Louise
Description: This self-study, unlimited enrollment online course for undergraduate and professional students informs about frequently prescribed medications (e.g., Lipitor) and the disease these medications are intended to treat (e.g., high cholesterol). Examples of course topics include: migraines, obesity, asthma, and pregnancy prevention. There is no textbook for this course. Students use WebVista to view audio-narrated presentations, download handout materials (also available for purchase), and complete self tests in preparation for exams. The required course orientation is completed online. Course information is sent to registered students U of M email addresses shortly before, and/or on, the first day of classes each Fall semester, Spring semester, and 8-week Summer term. For more information on this flexible course, explore the course website and/or contact rxdx@umn.edu or 612-624-7976.
Style: self-study with regularly scheduled in-person testing sessions.
Grading: 5% reports/papers, 95% additional semester exams.
average of 4 exam scores and case study. No final exam.
Exam Format: Multiple choice and True/False

PHAR 1005 Introduction to Drug Therapies of Addiction: Medicine or Menace?
2 credit(s); prereq Medical terminology recommended;
Instructor: Lichtblau PhD, Leonard
Description: This online two credit course provides students with the opportunity to explore the drug therapy (pharmacotherapy) of addiction. Through audio-narrated presentations, handouts, and additional online resources, students will gain basic drug therapy knowledge in the area of addiction; including, but not limited to topics such as drug regulation, drug therapy strategies used to treat pain, and how the concepts of tolerance, physical dependence, and addiction influence care. Mechanism of action of various illicit and prescription medications which are commonly misused (e.g. Ritalin), as well as the drug therapy of addiction (e.g. Methadone) will also be covered.
Style: 100% Web Based. This is a self study course with one deadline for all coursework.
Grading: 12% reports/papers, 87% additional semester exams.
Exam Format: There are 4 online, timed exams which have multiple-choice and true/false questions. Exam 4 contains a written portion (paper) in addition to multiple choice and true/false questions.

PHAR 3700 Fundamentals of Pharmacotherapy
2 credit(s); prereq Medical terminology recommended; Credit will not be granted if credit has been received for: PHAR 3700;
Instructor: Pittenger, Amy Louise
Description: While this course is completely online, there are three exam deadlines throughout the semester. This course is designed for students pursuing careers that require them to have a basic familiarity with drug therapy. This course is offered totally online and will focus on recognition of brand and generic drug names, their therapeutic classes and common uses. In addition, participants will develop a basic proficiency in the use of drug information resources. With the competencies developed, participants of the course can expect to better review medication lists and work with health communication/documentation.
Style: 100% Web Based.
Grading: 100% additional semester exams. final grade is determined from three exam scores. There is one extra credit option
Exam Format: multiple-choice/online

PHAR 3800 Pharmacotherapy for the Health Professions
A-F only, 3 credit(s); prereq Anatomy/physiology, enrolled [nursing or respiratory care] student;
Instructor: Lounsbery, Jody Leigh
Description: This online course provides enrolled nursing and respiratory care students with a general understanding of drug therapy and its implications in patient care. (See course website for exact prerequisites for each health professional program.) There is
PHAR 4200W Drugs and the U.S. Health Care System  
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: PHAR 5200; Meets CLE req of Writing Intensive;  
Instructor: Pittenger,Amy Louise  
Description: Phar 4200W Drugs and the US Healthcare System 3 cr. Prereqs: none; Instructor: Pittenger, PharmD, MS, Amy L. This is not a self-study course. This completely online course prepares students to be informed and responsible users of medications within the healthcare system and fulfills a writing intensive requirement. Medication development, regulation and distribution in the US are explored, along with the business, political and legal/ethical issues involved. Through weekly reading and writing assignments, participants identify and substantiate their own stances on issues. Requirements include short writing assignments (finished writing in the form of postings to a discussion board) each week, self-reflections, and a Final Project allowing exploration of issues of interest to you. For more information, see our course website http://courses.pharmacy.umn.edu or contact rxsystem@umn.edu or 612-624-7976.  
Style: 100% Web Based.  
Grading: 35% reports/papers, 30% reflection paper, 35% class participation. Class participation is defined as weekly postings to course discussion board.  
Exam Format: there are no exams

PHAR 4248 Directed Study: Drugs of Abuse  
A-F only, 2 credit(s); prereq Organic chemistry I/II or [organic chemistry I, biochemistry I];  
Instructor: Remmel,Rory P  
Description: Student may contact the instructor or department for information.

PHAR 4294 Directed Study I for Undergraduates  
A-F only, 1-6 credit(s), max credits 6;  
Instructor: Panyam PhD,Jayanth  
Description: Student may contact the instructor or department for information.

PHAR 5200 Drugs and the U.S. Health Care System  
A-F only, 3 credit(s); prereq [Grad or professional] student;  
Instructor: Pittenger,Amy Louise  
Description: Phar 5200 Drugs and the US Healthcare System 3 cr. Prereq: graduate student or permission of instructor  
Instructors: Pittenger, PharmD, MS, Amy L. This online course prepares students to be informed and responsible participants in debates related to medications within the U.S. healthcare system. Medication development, regulation and distribution in the US are explored, along with the business, political and legal/ethical issues involved. Through weekly reading and writing assignments, participants identify and substantiate their own stances on issues. Requirements include short writing assignments (finished writing in the form of postings to a discussion board) each week, self-reflections, and a Final Project, allowing exploration of issues of interest to you. For more information, see our course website http://courses.pharmacy.umn.edu or contact rxsystem@umn.edu or 612-624-7976.  
Style: 100% Web Based.  
Grading: 35% reports/papers, 30% reflection paper, 35% class participation. class participation is defined as discussion board postings

PHAR 5201 Health Sciences Applied Terminology  
2 credit(s); prereq Basic knowledge of human anatomy/physiology;  
Instructor: Pittenger,Amy Louise  
Description: This self-study, unlimited enrollment advanced course for undergraduates and professional students presumes basic knowledge of human anatomy and physiology. Students learn medical terms as well as how to apply them when documenting and reporting patient care procedures. Gaining this working knowledge of the medical language serves as a basis for further course work in the health sciences and/or enhances job skills in a wide variety of fields. The mandatory course orientation is completed online. Course information is sent to registered students U of M email addresses shortly before, and/or on, the first day of classes each Fall semester, Spring semester, and 8-week Summer term. For more information on this flexible course, explore the course website and/or contact medterm@umn.edu or 612-624-7976.  
Style: self-study with regularly scheduled in-person testing sessions.  
Grading: Average of scores for 4 exams

PHAR 5700 Applied Fundamentals of Pharmacotherapy  
A-F only, 3 credit(s); prereq [Medical terminology, admission to grad program] or instr consent ;  
Instructor: Pittenger,Amy Louise  
Description: Prerequisite: Medical Terminology and admitted to a graduate program (or permission of instructor) This course is designed for students pursuing careers that require them to have a basic familiarity with drug therapy. This course is offered primarily online and will focus on recognition of brand and generic drug names, their therapeutic classes and common uses. In addition, participants will develop a basic proficiency in the use of drug information resources. With the competencies developed, participants of the course can expect to better review medication lists and work with health communication/documentation. As compared to Phar 3700, Phar 5700 participants will complete a multimedia project on a drug-related topic of their choosing, in addition to completing additional learning modules on subjects appropriate to their profession.  
Style: 100% Web Based.  
Grading: 10% special projects, 90% additional semester exams.  
Exam Format: multiple choice/online

PHAR 5800 Pharmacotherapy for the Health Professions  
A-F only, 3 credit(s); prereq Nursing grad program;  
Instructor: Pittenger,Amy Louise  
Description: Student may contact the instructor or department for information.

Philosophy

PHIL 1001 Introduction to Logic  
4 credit(s); Credit will not be granted if credit has been received for: PHIL 1001H; Meets CLE req of Mathematical Thinking;  
Instructor: Kac,Michael B  
Description: This course is concerned with the science (and the art!) of DEDUCTIVE REASONING--the type of reasoning used in mathematics and other areas of intellectual endeavor which impose a strict standard of rationality. The key concept is that of a VALID ARGUMENT, meaning a series of statements in which the last one (the CONCLUSION) must be true if the other statements (the PREMISES) are also true. Most of the course is concerned with methods for demonstrating the validity or invalidity or arguments by analyzing their structure with the aid of the principles of a subject called SYMBOLIC LOGIC. At the end of the course, we will look at ways in which the same principles can be applied in a completely different area, namely the design of electrical circuits, and will also explore the close relationship between logic and the algebra of sets. Apart from knowledge of the specifics of the subject matter, students in this course learn no textbook for this course. Students use Vista to: view audio-narrated powerpoint presentations, download handout materials, complete self-assessments, and take exams. Course information is sent to the U of M email addresses of registered students shortly before, and/or on, the first day of classes each Fall and Spring term. For more information, see course website or contact philsoc@umn.edu or 612-625-4148.  
Grading: 25% mid exam, 25% final exam, 50% quizzes.  
Exam Format: Multiple choice
PHIL 1001 Introduction to Logic
4 credit(s); Credit will not be granted if credit has been received for: PHIL 1001H; Meets CLE req of Mathematical Thinking;
Instructor: Berrier, Monica Jean
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Logic and logical are words that we use every day with a variety of meanings, but you may still wonder what a course in logic is actually about. Logic is about sentences and relationships between sentences. What does that mean? Humans' primary means of communicating information is through language, and language is embodied in sentences. However, when we receive information via sentences, we can reason about the information contained in those sentences. So, if you hear someone is an orphan, you would infer that that person's parents died and he or she probably grew up with relatives. This seems like a reasonable inference to make. Logic provides an explanation for why these inferences are reasonable. That is, logic is the study of reliable methods of drawing conclusions from given information.
Style: This is a printed correspondence section.
Grading: 20% mid exam, 20% final exam, 60% written homework.
Exam Format: Supervised, in-person exams

PHIL 1003W Introduction to Ethics
4 credit(s); Credit will not be granted if credit has been received for: PHIL 1003V; Meets CLE req of Civic Life and Ethics; Meets CLE req of Writing Intensive; Instruction: Doyle, Tom
Description: You work independently, not as part of a student group. Visit "Class URL" for ODL policy, fee, and financial aid restrictions. This course is an introduction to ethics, or moral philosophy. It will study three ethical theories--as presented in John Stuart Mill's Utilitarianism, Immanuel Kant's Grounding for the Metaphysics of Morals, and Aristotle's Nicomachean Ethics--that try to address how we should live. It will examine these theories by focusing on how they each answer one key question: What makes an action the right thing to do? The study of ethics consists of both learning information and developing the skills needed to use that information. In this course, the information is the three ethical theories that we will cover, and, to understand and apply them, you will need to develop certain philosophical skills. The study questions and written assignments are designed to help you develop those skills.
Style: Online
Grading: 100% written homework. Course completion calendar--extra credit worth one increment of a letter grade

PHIL 1006W Philosophy and Cultural Diversity
4 credit(s); Credit will not be granted if credit has been received for: PHIL 1004W; Meets CLE req of Arts/Humanities; Meets CLE req of Writing Intensive;
Instructor: Deng, Yi
Description: Student may contact the instructor or department for information.

PHIL 1002W Introduction to Philosophy
4 credit(s); Credit will not be granted if credit has been received for: PHIL 1006W; Meets CLE req of Writing Intensive;
Instructor: Waters, C. Kenneth
Description: Student may contact the instructor or department for information.
PHIL 1905 Topics: Freshman Seminar: Socrates and Philosophy
A-F only, 3 credit(s), max credits 6; prereq freshman;
Instructor: Peterson,Sandra Lynne
Description: The execution of Socrates in 399 BC for corrupting the youth of Athens is considered a founding event of Western philosophy. We will study Socrates as depicted in Plato's dialogues, since Socrates himself wrote nothing. We will read (i) Plato's depiction of Socrates' defense speech at his trial, (ii) Plato's depiction of conversation between Socrates and some adolescent interlocutors, and (iii) Plato's depiction of conversation between Socrates and some professional educators of Athenian youth. We will attempt to understand what Socrates meant when, in reaction to the Delphic oracle's pronouncement that no one was wiser than Socrates, Socrates said that he knew nothing important. We will attempt to understand why those who convicted Socrates thought he was corrupting young people, and to understand why reflecting on Socrates might improve us today. Course readings will include Plato's Apology, Lysis, Hippias Minor, Gorgias, and part of Plato's Republic.
Style: 50% Discussion, 50% Small Group Activities.
Grading: 80% reports/papers, 20% attendance. I include under 'attendance' informed and attentive presence at the class discussions, but I don't require actually speaking out.

PHIL 3001W General History of Western Philosophy: Ancient Period
4 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Writing Intensive;
Instructor: Peterson,Sandra Lynne
Description: The course will study the beginnings of philosophy in the Western world. The ancient Greek philosophers to be studied include Heracletus, Parmenides, Gorgias, Socrates, Plato, Aristotle, and Sextus Empiricus. The course will reflect on some of the answers those thinkers gave to such questions as 'What is there?', 'What can we know about it?' and 'What should we do about it?' In studying these philosophers, we will also consider the question what they thought philosophy was. The course is for both majors and non-majors. Readings will be some fragments of the PreSocratics, several dialogues of Plato's, selections from Aristotle's writings, and Sextus Empiricus' 'Outlines of Scepticism'.
Style: 5% Lecture, 95% Discussion.
Grading: 80% reports/papers, 20% class participation.

PHIL 3003 General History of Western Philosophy: Medieval Period
3 credit(s); prereq credit will not be granted if credit already received for: Phil 4003;
Instructor: Hopkins,Jasper
Description: The course attempts to provide an overview of the thought of Augustine, Anselm, Maimonides, Aquinas, and Nicholas of Cusa. Mention is also made of Avicenna, Averroes, and Ockham. All texts for the course are on-line books and, thus, will not be found in the bookstore. Questions such as the following are explored from the Medieval perspective: Is it rational not to believe in God? Can one know, other than symbolically, what God's attributes are? Is the expression 'to know by faith' intelligible? Is Nominalism or Realism the preferable doctrine as regards the ontological status of universals? Can I know for certain anything besides my own present existence? Is it true for certain that si fallor, sum? Style: 75% Lecture, 25% Discussion.
Grading: Each examination will cover a separate part of the course and will determine, approximately, one-third of the semester grade. There is no final examination as such. Attendance is required. Unexcused absences of more than one week will be penalized.
Exam Format: varies

PHIL 3231 Philosophy and Language
4 credit(s);
Instructor: Owens,Joseph I
Description: Student may contact the instructor or department for information.

PHIL 3302W Moral Problems of Contemporary Society
4 credit(s); Credit will not be granted if credit has been received for: PHIL 3322W; Meets CLE req of Civic Life and Ethics; meets CLE req of Writing Intensive;
Instructor: Swartwood,Jason David
Description: Student may contact the instructor or department for information.

PHIL 3305 Medical Ethics
4 credit(s);
Instructor: Hopkins,Jasper
Description: The course deals with a number of typical problems encountered in the area of medical ethics--problems related to brain death, the persistent vegetative state, partial-birth abortion, informed consent, confidentiality, organ donation and retrieval, patients' rights, physician-assisted suicide, medical fulility, human and animal research, medical errors, health-care rationing, managed care, involuntary commitment, forcible treatment, cloning, genetic enhancement, and so on. Attendance is required. There will be three examinations, each covering a different part of the course.
Style: 85% Lecture, 15% Discussion.
Grading: Each exam counts for approximately one-third of the semester grade.
Exam Format: varies

PHIL 3307 Social Justice and Community Service
4 credit(s); Meets CLE req of Civic Life and Ethics;
Instructor: Wallace,John R
Description: This course explores four questions: What is good learning (good education)? What is good work (or what is vocation)? What is a good life? What is a good society? The method of inquiry used in the course is philosophical. It is alert to noticing and bringing into the open hidden assumptions and presuppositions. The course will use an approach to learning which goes by various names: 'circle of inquiry,' ?circle of culture,' ?community of inquiry,' 'learning circles.' This is an approach to learning in which a group learns collaboratively by (i) each member contributing his or her own voice and ideas, and (ii) inviting into the circle and listening to other voices--the voices of writers or speakers who by virtue of life experience and thoughtfulness contribute to the inquiry which is centered in the in-class circle of inquiry. A further essential aspect of the approach to learning in the course is that each student in the course will do work in the community to meet human needs for at least three hours per week throughout the semester. This course carries 4 credits and meets two of the CLE theme requirements: Citizenship/Public Ethics and Cultural Diversity.
Style: 15% Lecture, 85% Student Presentation.
Grading: 50% reflection paper, 50% class participation.

PHIL 3311W Introduction to Ethical Theory
4 credit(s); Meets CLE req of Writing Intensive;
Instructor: Nelson,Stephen Mikkal
Description: Student may contact the instructor or department for information.

PHIL 3502W Introduction to Aesthetics
3 credit(s), max credits 4, 1 completion allowed; Meets CLE req of Writing Intensive;
Instructor: Cook,Roy Thomas
Description: Student may contact the instructor or department for information.

PHIL 3601W Scientific Thought
This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
PHIL 3993 Directed Studies
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent, dept consent, college consent; Instructor: STAFF
Description: Students may contact the instructor or department for information.

PHIL 4105W Epistemology
A-F only, 3 credit(s); prereq 1001 or instr consent; Meets CLE req of Writing Intensive;
Instructor: Hanks, Peter William
Description: Epistemology is the theory of knowledge. It is concerned with questions like: What is knowledge? What is the extent of our knowledge? Do we have knowledge of the external physical world? What is skepticism about knowledge? Are there good arguments for skepticism? If so, how should we respond to these arguments? We’ll address these and related questions through the study of historical and contemporary texts.

PHIL 4325 Education and Social Change
A-F only, 4 credit(s); Credit will not be granted if credit has been received for: PHIL 5323; Meets CLE req of Arts/Humanities; meets CLE req of Civic Life and Ethics;
Instructor: Wallace, John R
Description: This course focuses on a family of approaches to education that has shown promise in moving societies in several parts of the world toward greater justice, democracy, peace-mindedness, self-understanding and environmental responsibility. This family of approaches is known by various names, including ?popular education,? ?democratic education? and ?participatory education.? The course integrates a seminar, focusing on theory, with a practicum at various places in the Twin Cities, including the Jane Addams School for Democracy, the Southside Family Charter School, the Franklin Library, the Minneapolis Public Libraries Conversation Circles and other places where democratic education is being practiced. The purpose is to provide students a theory-rich apprenticeship in democratic education, an apprenticeship that weaves together first-hand field participation at a democratic education site with the study of theories about and case studies of democratic education. A student will emerge from the course with an understanding of the theory of democratic education, with an appreciation of contexts in which this approach to education has been used in various parts of the world, with a practical understanding of what it takes to function as a democratic educator and to design and facilitate democratic education settings. This course counts toward two liberal education theme requirements: Cultural Diversity and Citizenship in Public Ethics. The course carries 4 credits.
Style: 15% Lecture, 70% Discussion, 15% Service Learning.
Grading: 50% reflection paper, 50% class participation.

PHIL 4414 Political Philosophy
3 credit(s); prereq 1004 or instr consent;
Instructor: Stoner, Ian M
Description: Student may contact the instructor or department for information.

PHIL 4615 Minds, Bodies, and Machines
3 credit(s); prereq one course in philosophy or instr consent;
Instructor: Owens, Joseph I
Description: Our concern is with the nature of mind with alleged differences between mind and body, and with a number of recent attempts to integrate mind into the natural order. This course has three parts. In Part A, we discuss some traditional conceptions of mind and body and how these have come under attack from materialists and behaviorists. In Part B, we examine the view of mind that is dominant in contemporary cognitive theory. This view has two components: first, it incorporates the notion that representation is central, that having a mind is primarily having a representational system—being able to represent one’s environment and being able to operate on such representations to infer, to plan action, etc. Second, certain well known systems exhibit this kind of representational capacity—computers—and so they provide us with a new model of what it is to have a mind. To have a mind is to satisfy a certain kind of very powerful program. In a sense, we are no more than sophisticated automatons, and if we want to understand the working of such an automaton one studies its program. To gain some real understanding of such phenomena as vision, linguistic understanding, trying to design a program for a system so that it, too, can be said to see and understand, our final part consists of an examination of Wittgenstein’s later philosophy, the most most radical challenge to all traditional and contemporary theories of mind.
Style: 75% Lecture, 25% Discussion.
Grading: 100% reports/papers.

PHIL 4993 Directed Studies
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent, dept consent, college consent; Instructor: STAFF
Description: Student may contact the instructor or department for information.

PHIL 5201 Symbolic Logic I
4 credit(s); prereq 1001 or instr consent;
Instructor: Cook, Roy Thomas
Description: Student may contact the instructor or department for information.

PHIL 5993 Directed Studies
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent, dept consent, college consent; Instructor: STAFF
Description: Student may contact the instructor or department for information.

PHIL 8310 Seminar: Moral Philosophy
3 credit(s), max credits 9, 3 completions allowed; prereq 4310 or 4320 or 4330 or instr consent;
Instructor: Tiberius, Valerie
Description: Practical Wisdom Practical wisdom is an important virtue that has received little philosophical attention in recent years. The course will explore relevant literature in virtue ethics, meta-ethics, virtue epistemology and moral psychology.

Physical Education
220 Cooke Hall

PE 1004 Diving: Springboard
OPT NoAud, 1 credit(s); prereq 1007 or equiv or instr consent;
Instructor: Street, Meagan A
Description: All class materials provided. Course open to anyone interested in learning about diving as a sport. Course involves notes on technical aspects of competitive diving, actual
participation in learning how to dive, safely and correctly.

PE 1007 Beginning Swimming
OPT No Aud, 1 credit(s);
Instructor: Novotny, Jessica Lynn
Description: Introduction to basic aquatic safety, fundamentals of swimming and hydrodynamics. Principles of hydrodynamics and stroke mechanics; five basic strokes; basic rescue techniques with use of pool equipment; hydrotherapy for disabilities and other conditions, opportunities for competitive activities, lifetime enjoyment of aquatics.

PE 1007 Beginning Swimming
OPT No Aud, 1 credit(s);
Instructor: Hamilton, Maya
Description: Introduction to basic aquatic safety, fundamentals of swimming and hydrodynamics. Principles of hydrodynamics and stroke mechanics; five basic strokes; basic rescue techniques with use of pool equipment; hydrotherapy for disabilities and other conditions, opportunities for competitive activities, lifetime enjoyment of aquatics.

PE 1007 Beginning Swimming
OPT No Aud, 1 credit(s);
Instructor: Dutove, Julia Kathryn
Description: Student may contact the instructor or department for information.

PE 1012 Beginning Running
OPT No Aud, 1 credit(s);
Instructor: Eaton, Lois M

PE 1014 Conditioning
OPT No Aud, 1 credit(s);
Instructor: Brown, Scott
Description: Conditioning is a beginning-level class. It is designed to introduce the basic fundamentals of personal fitness. The topics covered are the following: principles of fitness, health-related and motor-skill related components of fitness, principles of training and conditioning programs, nutrition, weight control, common fitness injuries, and stress management. Heart rate monitor required; may be purchased at URCTR for approximately $50.

PE 1014 Conditioning
OPT No Aud, 1 credit(s);
Instructor: Lundstrom, Christopher J
Description: Student may contact the instructor or department for information.

PE 1015 Weight Training
OPT No Aud, 1 credit(s);
Instructor: Norris, Alyssa Lynne
Description: Student may contact the instructor or department for information.

PE 1016 Posture and Individual Exercise
OPT No Aud, 1 credit(s);
Instructor: Lemler, Lisa Lynn
Description: Good posture techniques, individual exercises, fitness concepts, and mental techniques. Specific overall sound body and mind techniques to include flexibility exercises, cardiovascular fitness, resistance training, nutrition management, weight control, stress management, and self-thought.

PE 1029 Handball
OPT No Aud, 1 credit(s);
Instructor: Hiber, Matthew Frank
Description: This course has been designed as an introductory level activity program for handball players. Its intent is to familiarize students with the rules of handball and teach the fundamental skills of this challenging sport. Daily activities will focus on entry-level drills, playing games, and learning appropriate handball etiquette. Students will be expected to purchase handball gloves, handballs, and protective eyewear. There will be a $35 equipment fee.
Style: 10% Lecture, skills and activities
Grading: 10% mid exam, 10% final exam, 80% class participation.
Exam Format: One T/F test and one short answer test

PE 1031 Sabre Fencing
OPT No Aud, 1 credit(s);
Instructor: Sobalvarro, J Roberto
Description: Basic sabre techniques, movement, an overview of fencing as a recreational sport and an Olympic sport, and the history of fencing.

PE 1032 Badminton
OPT No Aud, 1 credit(s);
Instructor: Phillips, Alison C
Description: Student may contact the instructor or department for information.

PE 1032 Badminton
OPT No Aud, 1 credit(s);
Instructor: Gasior, Lisa J
Description: Student may contact the instructor or department for information.

PE 1033 Foil Fencing
OPT No Aud, 1 credit(s);
Instructor: Sobalvarro, J Roberto
Description: Fencing fundamentals, including basic foil techniques, movement, a general overview of fencing as a recreational sport and an Olympic sport, and the history of fencing.

PE 1034 Judo
OPT No Aud, 1 credit(s);
Instructor: Crone, Tom
Description: The judo class instructs students in the basic skills of throwing, grappling (matwork), choking and arm lock techniques, and falling skills. These are the basic skills used in contest judo, and also have personal defense application of a very realistic and practical nature. Students are also given an appreciation of the evolution of judo from Ju-Jitsu, and they learn the fundamental rules and scoring of contest. Action videos are used both for instruction of techniques and appreciation of contests. The principles of judo and its philosophy as they apply to daily life enhancement, are also covered.
Style: 5% Lecture, 5% Discussion. Physical instruction of judo techniques and skill application.
Grading: 15% mid exam, 20% final exam, 65% class participation. There is a final physical skills exam which is factored into the overall Class Participation grade. It consists of student chosen techniques from the semester.
Exam Format: Mid Term & Final; Matching, multiple choice, true/false Physical Exam: Demonstration of skills

PE 1035 Karate
OPT No Aud, 1 credit(s);
Instructor: Fusaro, Robert L
Description: This course will introduce the student to Japanese Shotokan Karate (traditional karate); a style of karate that is natural and functional. Students will learn proper posture and methods to develop power and control utilizing feet, legs, and hips. The principal of body dynamics, which Shotokan Karate is noted for, will enable a person of 100 pounds or less to develop power capable of defending themselves against a person of greater size and weight. Shotokan Karate is a non-contact martial art in which no protective gear or gloves of any type is worn. Therefore, control is essential. Men, women, and children can participate in this exhilarating martial art without fearing for their well-being. Structural foundation is essential for developing a delivery system for blocking, kicking, and punching, techniques which are basic elements of self-defense. These movements will
PE 1036 Racquetball
OPT No Aud, 1 credit(s);
Instructor: Johnson, Matthew Lloyd
Description: Fundamentals of racquetball, including equipment; safety and etiquette; terminology; game rules of singles, doubles, and cutthroat; grips; basic strategies; serves and shots.

PE 1036 Racquetball
OPT No Aud, 1 credit(s);
Instructor: Hoffman, Mitchell Lee
Description: Fundamentals of racquetball, including equipment; safety and etiquette; terminology; game rules of singles, doubles, and cutthroat; grips; basic strategies; serves and shots.

PE 1037 Squash Racquets
OPT No Aud, 1 credit(s);
Instructor: Stever, John Ball
Description: This course has been designed as an introductory-level activity program for novice squash players. Its intent is to familiarize the individual with the play, rules, equipment, and courts of the game. Weekly lessons will focus on entry-level technique as well as safety on and around the court. Upon completion of this course, students will: 1) have learned the mechanics of the basic squash strokes; 2) understand positioning and movement on the court; 3) understand and apply the international rules for play; 4) be able to describe the basic dimensions and markings of an international squash racket court; and 5) be able to select and care for equipment. The texts for the course include the well-illustrated Squash: Steps to Success by Yarrow (1997), and the “International Squash Rules” as published by the World Squash Association on the Internet.
Style: 15% Lecture, 10% Film/Video. 75% on court for drills and games. Much of lecture is also on court.
Grading: 20% mid exam, 20% attendance, 60% other evaluation. On court evaluation of improvement on basic techniques
Exam Format: Multiple choice, T/F

PE 1038 Beginning Tennis
OPT No Aud, 1 credit(s);
Instructor: Sanny, John H
Description: Fundamental strokes, including forehands, backhands, volleys, lobs, overheads, and serves; introduction to doubles play; terminology, rules, and etiquette.

PE 1043 Beginning Horse Riding
OPT No Aud, 1 credit(s);
Instructor: Benner, Jaime Ashley
Description: Techniques, styles, and communication of English riding. Students will learn riding techniques at a walk, trot, canter, and jumping.

PE 1044 Self-Defense
OPT No Aud, 1 credit(s);
Instructor: Bendickson, Anita Olivia
Description: Course consists of learning basic physical and psychological skills to help the student recognize and act in crisis and pre-crisis situations: to avoid or stop physical assault, harassment, irritating and/or dangerous situations and encounters. Physical skills include basic striking, kicking, shifting (learning to move out of the way), blocking, and specialized techniques for specific situations. Psychological skills include learning to analyze self-defense situations, i.e., what strengths does the student have, what vulnerabilities does his/her opponent have and what opportunities are there to apply those strengths and use those vulnerabilities. This includes developing an understanding of force, eye contact and strong body language, and basic verbal skills such as assertiveness. Class work will include drills in physical techniques to develop coordination and strength, practice time in hitting and kicking bags, many controlled situations with partners (including floor, weapon, and multiple attacker situations) to teach basic skills of analysis and application.
Style: 10% Discussion.
Grading: 50% final exam, 20% reports/papers, 30% class participation.
Exam Format: Physical demonstration of basic skills plus student’s choice of one from each of the following four categories (partner exercises): 1) basic blocking, 2) response to a grab from the front, 3) response to a grab from behind, 4) one special situation

PE 1045 Rock Climbing
OPT No Aud, 1 credit(s); prereq Good general health, no [neck or back] problems;
Instructor: Tracy, Shawn Patrick
Description: Student may contact the instructor or department for information.

PE 1045 Rock Climbing
OPT No Aud, 1 credit(s); prereq Good general health, no [neck or back] problems;
Instructor: Hoffman, Mitchell Lee
Description: Student may contact the instructor or department for information.

PE 1046 Tae Kwon Do
OPT No Aud, 1 credit(s);
Instructor: Kim, Il Keun
Description: Fundamentals of Tae Kwon Do. Principles of martial arts, body mechanics of Tae Kwon Do, practical self-defense.

PE 1046 Tae Kwon Do
OPT No Aud, 1 credit(s);
Instructor: Kim, Aaron Hyun Sik
Description: Fundamentals of Tae Kwon Do. Principles of martial arts, body mechanics of Tae Kwon Do, practical self-defense.

PE 1048 Bowling
OPT No Aud, 1 credit(s);  
Instructor: Schmid, Michael F  
Description: Fundamentals, including stance, approach and delivery, scoring, bowling terminology, and etiquette. Every student is given personalized instruction on an individual basis each class session. Everyone will learn to throw a hook.

PE 1048 Bowling  
OPT No Aud, 1 credit(s);  
Instructor: Jor'dan, Azzah J  
Description: Fundamentals, including stance, approach and delivery, scoring, bowling terminology, and etiquette.

PE 1048 Bowling  
OPT No Aud, 1 credit(s);  
Instructor: Pacl, Bryan Christopher  
Description: Fundamentals, including stance, approach and delivery, scoring, bowling terminology, and etiquette.

PE 1055 Golf  
OPT No Aud, 1 credit(s);  
Instructor: Ause, Angela Jean  
Description: Proper grip, stance, ball address, swing, club selection, psychological management, rules, and etiquette. Basic instruction in analyzing, assisting with, and coaching golf.

PE 1059 Track and Field  
OPT No Aud, 1 credit(s);  
Instructor: Lundstrom, Christopher J  
Description: Student may contact the instructor or department for information.

PE 1059 Track and Field  
OPT No Aud, 1 credit(s);  
Instructor: Gasior, Lisa J  
Description: Student may contact the instructor or department for information.

PE 1067 Basketball  
OPT No Aud, 1 credit(s);  
Instructor: Focke, Alex  
Description: Student may contact the instructor or department for information.

PE 1071 Beginning Cricket  
OPT No Aud, 1 credit(s);  
Instructor: Peterson, Charles E  
Description: Fundamentals of Cricket. Laws of Cricket, bowling/batting techniques, competitive/recreational Cricket opportunities.

PE 1072 Soccer  
OPT No Aud, 1 credit(s);  
Instructor: Adamcsek, Viktor Istvan  
Description: Fundamentals of soccer including sporting behavior both on and off the field, game rules, soccer terminology, participation and competition drills, fundamental soccer skills, practical instruction in strategy.

PE 1072 Soccer  
OPT No Aud, 1 credit(s);  
Instructor: Wurst, Katie  
Description: Fundamentals of soccer including sporting behavior both on and off the field, game rules, soccer terminology, participation and competition drills, fundamental soccer skills, practical instruction in strategy.

PE 1074 Beginning Volleyball  
OPT No Aud, 1 credit(s);  
Instructor: Shingles, Kori Elizabeth  
Description: Basic skills, team play, rules, officiating, and strategy.

PE 1074 Beginning Volleyball  
OPT No Aud, 1 credit(s);  
Instructor: Phillips, Alison C  
Description: Student may contact the instructor or department for information.

PE 1074 Beginning Volleyball  
OPT No Aud, 1 credit(s);  
Instructor: Gasior, Lisa J  
Description: Student may contact the instructor or department for information.

PE 1075 Ice Hockey  
OPT No Aud, 1 credit(s); prereq 1053 or equiv or instr consent;  
Instructor: Fitzgerald, John S  
Description: Offensive/defensive strategies/techniques, goal tending, scrimmage play. Students need their own equipment.

PE 1076 Flag Football  
OPT No Aud, 1 credit(s);  
Instructor: Hunt, Bradley Owen  
Description: Student may contact the instructor or department for information.

PE 1077 Lacrosse  
OPT No Aud, 1 credit(s);  
Instructor: Holdsworth, Janet Michele  
Description: Student may contact the instructor or department for information.

PE 1079 Rugby (Non-contact)  
OPT No Aud, 1 credit(s);  
Instructor: Wurst, Katie  
Description: Student may contact the instructor or department for information.

PE 1082 Broomball  
OPT No Aud, 1 credit(s);  
Instructor: Johnson, Matthew Lloyd  
Description: Student may contact the instructor or department for information.

PE 1107 Intermediate Swimming  
OPT No Aud, 1 credit(s); prereq 1007 or equiv, proficient ability to swim 100 meters or instr consent;  
Instructor: Hamilton, Maya  
Description: Intermediate swimming skills. Fundamentals of swimming and hydrodynamics.

PE 1205 Scuba and Skin Diving  
OPT No Aud, 1 credit(s); prereq Ability to swim 400 yds comfortably or instr consent;  
Instructor: Karl, Robert J  
Description: This course is available to all students and prospective students (through CCE) at the University. The course consists of classroom instruction and practical pool work. SCUBA Certification is not included in the course. The third part necessary for certification (4-open water dives) can be arranged through the instructor at an additional charge. Students may also decide to get a referral letter and take their openwater dives at numerous locations around the world. Classroom subjects include the physics and physiology of diving, equipment, decompression, dive planning, emergencies, and the marine environment. Some topics require mandatory attendance. Pool work covers all necessary applications to diving. All students must be comfortable being in the water, and must be able to swim a minimum of 400 yards. Students should plan on attending all class and pool sessions, as quizzes will be administered throughout the course and all pool work is built on previously learned skills. All evening students and all day school students whose classes start on Thursdays, must come to the first class with appropriate swimming attire (i.e. swimming suits). Evening classes have a 2-hr. lecture period followed by 2 hrs. of pool work. Day classes have lectures on Tuesdays and pool work on Thursdays. Please check the website http://SuperiorExpeditions.com for forms and notes for requirements and limitations for SCUBA diving. There will be a
Physical Medicine and Rehabilitation
500 Boynton Health Service (Box 297 Mayo)

PMED 8200 Physical Medicine and Rehabilitation Service
1-15 credit(s), max credits 15, 1 completion allowed; prereq enrolled in PMed residency training program;
Instructor: Dykstra, Dennis Dale
Description: Student may contact the instructor or department for information.

Physical Therapy
382 Children’s Rehabilitation Center

PT 1002 Orientation to Physical Therapy
S-N only, 1 credit(s);
Instructor: Olson-Kellogg, Becky Jo
Description: This course is an introduction to the profession of Physical Therapy. The course is intended for undergraduate university students who are interested in pursuing Physical Therapy as a career, or who want to learn more about the field of Physical Therapy to assist them in making a career decision.

PT 1002 Orientation to Physical Therapy
S-N only, 1 credit(s);
Instructor: Koehler, Linda Ann
Description: This course is an introduction to the profession of Physical Therapy. The course is intended for undergraduate university students who are interested in pursuing Physical Therapy as a career, or who want to learn more about the field of Physical Therapy to assist them in making a career decision.

PT 6002 Ethics in Public Health: Research and Policy
S-N only, 1 credit(s), max credits 2;
Instructor: Di Fabio, Richard P
Description: Student may contact the instructor or department for information.

PT 6213 Clerkship I
A-F only, 2 credit(s); prereq Registered PT student;
Instructor: Lojovich, Jeanne Marie
Description: Student may contact the instructor or department for information.

PT 6215 Clerkship III
A-F only, 1 credit(s), max credits 2, 1 completion allowed; prereq Registered PT student;
Instructor: Lojovich, Jeanne Marie
Description: Student may contact the instructor or department for information.

PT 6220 Clinic Volunteer
No Grade, 1 credit(s), max credits 6, 6 completions allowed;
Instructor: Anderson, Kathleen
Description: Student may contact the instructor or department for information.

PT 6231 Clinical Biomechanics
A-F only, 5 credit(s); prereq Intro calculus, physics, registered PT student; Credit will not be granted if credit has been received for: PMED 5231;
Instructor: Ludewig, Paula M
Description: Student may contact the instructor or department for information.

PT 6280 Clinical Assessment
A-F only, 4 credit(s); prereq Registered PT student;
Instructor: Glasoe, Ward M
Description: Student may contact the instructor or department for information.

PT 6281 Scientific Foundations I: Theory of Therapeutic Exercise
A-F only, 3 credit(s); prereq Registered PT student; Credit will not be granted if credit has been received for: RTT 5281;
Instructor: Thompson PhD, LaDora V
Description: Student may contact the instructor or department for information.

PT 6283 Musculoskeletal I
A-F only, 7 credit(s); prereq enrolled PT student;
Instructor: Anderson, Kathleen
Description: Student may contact the instructor or department for information.

PT 6293 Essentials of Rehabilitation Research
A-F only, 4 credit(s); prereq Registered 2nd yr PT student;
Instructor: Di Fabio, Richard P
Description: Student may contact the instructor or department for information.

PT 6295 Clinical Internship I
S-N only, 10 credit(s); prereq Registered 3rd yr PT student;
Instructor: Lojovich, Jeanne Marie
Description: Student may contact the instructor or department for information.

PT 6296 Clinical Internship II
S-N only, 10 credit(s); prereq Registered PT Student;
Instructor: Lojovich, Jeanne Marie
Description: Student may contact the instructor or department for information.

PT 6340 Human Growth and Development
A-F only, 3 credit(s); prereq Registered PT student;
Instructor: Koehler, Linda Ann
Description: Student may contact the instructor or department for information.

PT 7000 Neurological Theory and Neuroscience in Physical Therapy
A-F only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq Admitted to Transisitional Doctor of Physical Therapy Program;
Instructor: Lojovich, Jeanne Marie
Description: Student may contact the instructor or department for information.

PT 7009 Capstone Experience
A-F only, 3 credit(s); prereq Must be a DPT student;
Instructor: Carey, James Robert
Description: Student may contact the instructor or department for information.

PT 7010 Topics in Geriatric Rehabilitation I
S-N only, 2 credit(s); prereq Licensed physical therapist enrolled in geriatric clinical residency;
Instructor: Olson-Kellogg, Becky Jo
Description: Student may contact the instructor or department for information.

PT 8131 Research Seminar I
A-F only, 1 credit(s); prereq Grad PT major;
Instructor: Carey, James Robert
Description: Student may contact the instructor or department for information.

PT 8131 Research Seminar I

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
A-F only, 1 credit(s); prereq Grad PT major;
Instructor: Snow MD,PhD,LeAnn M
Description: Student may contact the instructor or department for information.

PT 8131 Research Seminar I
A-F only, 1 credit(s); prereq Grad PT major;
Instructor: Kimberly,PT, PhD,Teresa Jacobson
Description: Student may contact the instructor or department for information.

PT 8131 Research Seminar I
A-F only, 1 credit(s); prereq Grad PT major;
Instructor: Di Fabio,Richard P
Description: Student may contact the instructor or department for information.

PT 8131 Research Seminar I
A-F only, 1 credit(s); prereq Grad PT major;
Instructor: Thompson PhD,LaDora V
Description: Student may contact the instructor or department for information.

PT 8193 Research Problems in Physical Therapy
A-F only, 1-7 credit(s), max credits 7, 7 completions allowed;
prereq Grad PT major;
Instructor: Carey,James Robert
Description: Student may contact the instructor or department for information.

PT 8193 Research Problems in Physical Therapy
A-F only, 1-7 credit(s), max credits 7, 7 completions allowed;
prereq Grad PT major;
Instructor: Snow MD,PhD,LeAnn M
Description: Student may contact the instructor or department for information.

PT 8193 Research Problems in Physical Therapy
A-F only, 1-7 credit(s), max credits 7, 7 completions allowed;
prereq Grad PT major;
Instructor: Thompson PhD,LaDora V
Description: Student may contact the instructor or department for information.

PT 8193 Research Problems in Physical Therapy
A-F only, 1-7 credit(s), max credits 7, 7 completions allowed;
prereq Grad PT major;
Instructor: Ludewig,Paula M
Description: Student may contact the instructor or department for information.

PT 8193 Research Problems in Physical Therapy
A-F only, 1-7 credit(s), max credits 7, 7 completions allowed;
prereq Grad PT major;
Instructor: Lowe,Dawn Annette
Description: Student may contact the instructor or department for information.

PT 8193 Research Problems in Physical Therapy
A-F only, 1-7 credit(s), max credits 7, 7 completions allowed;
prereq Grad PT major;
Instructor: Kukulka,Carl G
Description: Student may contact the instructor or department for information.

PT 8193 Research Problems in Physical Therapy
A-F only, 1-7 credit(s), max credits 7, 7 completions allowed;
prereq Grad PT major;
Instructor: Nuckley PhD,David J
Description: Student may contact the instructor or department for information.

PHYS 1011 Physical World
A-F only, 3 credit(s); prereq 1 yr high school algebra; 
Instructor: Cassola,Robert L
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. The underlying purpose of this course is to provide you with a firm, elementary understanding of the principles of physics. The material covered in this course is fundamental and forms the basis for virtually all future courses in physics and engineering. It is hoped that as you proceed through this course, you will not only gain some facility in applying the concepts of physics to problems of practical interest, but that you will also gain an awareness of, and an appreciation for, the unifying principles on which physics is based.
Style: This is a printed correspondence section.
Grading: 40% mid exam, 30% final exam, 30% written homework.
Exam Format: Supervised, in-person exams

PHYS 1101W Introductory College Physics I
4 credit(s); prereq High school algebra, plane geometry, trigonometry; primarily for students interested in technical areas; Meets CLE req of Physical Sciences; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: This is the first part of a course sequence designed to prepare you for work in your field by: having solid conceptual understanding of the way the real world works based on a few
fundamental principles of physics; being able to solve realistic problems using logical reasoning and quantitative problem solving skills; applying those physics concepts and problem solving skills to new situations; and learning to effectively communicate technical information. To achieve these goals, this course requires an in-depth understanding of the material. Phys 1101W will emphasize the dynamics approach to physics emphasizing the description of motion of interacting objects and the forces that they exert on each other. No previous physics knowledge is assumed, but it is assumed that you are able to do algebra, including solving quadratic and simultaneous equations, interpret simple graphs, basic geometry, especially the geometry of triangles; the use of sine, cosine, and tangent; and the Pythagorean Theorem. A laboratory requires you to apply both the concepts and problem solving skills taught in this course to the real world. It also emphasizes technical communications skills. A discussion section gives you the opportunity to discuss your conceptual understanding and problem solving skills while you practice solving problems with other students. The laboratory and discussions sections emphasize collaborative problem solving as a powerful learning tool and as a preparation for work in your profession.

PHYS 1107 Introductory Physics Online I
4 credit(s); prereq High school algebra, plane geometry, trigonometry;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

PHYS 1107 Introductory Physics Online I
4 credit(s); prereq High school algebra, plane geometry, trigonometry;
Instructor: Border, Pete Mac
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid information. Physics 1107 is an online, algebra-based course covering Newtonian mechanics. Its topics are kinematics, dynamics, forces, mechanical energy, momentum, rotational kinematics, and rotational dynamics. Each lesson contains a laboratory exercise to be performed at home. Labs are supplemented by online, interactive simulations. Problem-solving is fundamental to Physics 1107, both as a way to learn the concepts of physics and as a skill in itself. You will solve problems on your own and in small online groups, including weekly live chat sessions for questions and help.
Style: 100% Web Based.
Grading: 20% mid exam, 20% final exam. -12 sets of textbook problems (35%); -13 pre-lab prediction and method questions (5%); -13 labs, including data analysis activities (5%) -6 lab reports (15%)
Exam Format: Supervised, in-person (not online) midterm and final exams.

PHYS 1201W Introductory Physics for Biology and Pre-medicine I
5 credit(s); prereq [High school or college] calculus, trigonometry, algebra; Credit will not be granted if credit has been received for: PHYS 1301W; Meets CLE req of Physical Sciences; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: This is the first semester of a 2 semester course designed primarily for students majoring in the biological sciences or preparing for medical school. This is not a survey course of all physics but requires an in-depth understanding of fundamental principles and their application. A course in calculus equivalent to Math 1271, 1371 or 1281 taken previously or simultaneously is required. Students should have a working knowledge of derivatives as well as algebra and the geometry of right triangles. The course emphasizes an understanding of the fundamental principles of physics and their use in solving realistic quantitative problems of the type found in biological applications. The first semester develops the concepts of forces and conservation principles to determine the behavior of a system. The importance of energy transfer between objects in a system and between systems will be emphasized, especially within the framework of thermodynamics. A required laboratory illustrates the application of the concepts and problem solving skills taught in this course to the real world. It will also emphasize technical communications skills. A discussion section gives the opportunity to discuss your conceptual understanding and your problem solving skills by practicing working problems with other students. The laboratory and discussions sections will emphasize collaborative problem solving as a powerful learning tool and as a preparation for work in your profession.

PHYS 1202W Introductory Physics for Biology and Pre-medicine II
5 credit(s); prereq 1201W; Credit will not be granted if credit has been received for: PHYS 1302W; Meets CLE req of Physical Sciences; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: This is the continuation of physics 1201W designed primarily for students majoring in the biological sciences or preparing for medical school. This is not a survey course of all physics but requires an in-depth understanding of fundamental principles and their application. A course in calculus equivalent to Math 1272, 1272 or 1282 taken previously or simultaneously is required. Students should have a working knowledge of derivatives and integrals as well as all of the mathematics skills used in 1201W. The course emphasizes an understanding of the fundamental principles of physics and their use in solving quantitative problems of the type found in biological applications. The second semester involves the study of the optics, electrical circuits, the properties of the electric and magnetic force, and nuclear processes relevant to biological systems. A required laboratory illustrates the application of the concepts and problem solving skills taught in this course to the real world. It will also emphasize technical communications skills. A discussion section gives the opportunity to discuss your conceptual understanding and your problem solving skills by practicing working problems with other students. The laboratory and discussions sections will emphasize collaborative problem solving as a powerful learning tool and as a preparation for work in your profession.

PHYS 1301W Introductory Physics for Science and Engineering I
4 credit(s); prereq Concurrent registration is required (or allowed) in Math 1271 or Concurrent registration is required (or allowed) in Math 1371 or Concurrent registration is required (or allowed) in Math 1571; Credit will not be granted if credit has been received for: PHYS 1201W; Meets CLE req of Physical Sciences; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: This is the first of a three semester introductory course in physics for students in sciences and engineering. 1301W/1302W, 2303 or 2503 is designed to prepare you for work in your field by: building a solid conceptual understanding of fundamental principles of physics, and their applications; applying those principles to new situations, using logical reasoning and quantitative problem-solving skills; learning to communicate technical information effectively. To achieve these goals, this course requires you to understand the material in depth. 1301W will emphasize the study of mechanical systems, beginning with the description of motion of interacting objects, the forces that they exert on each other and the quantities that are conserved in those interactions. A laboratory is included to allow you to apply physical principles to the real world in a carefully controlled environment, and will also emphasize technical communications skills. A discussion section will give you the opportunity to clarify your conceptual understanding, and practice your problem solving skills, by practicing theoretical problems with other students. This is a calculus-based course, and students will be expected to use the basic concepts of differential and integral calculus, as well as algebra and trigonometry.

PHYS 1301W Introductory Physics for Science and Engineering I
4 credit(s); prereq Concurrent registration is required (or allowed) in Math 1271 or Concurrent registration is required (or allowed) in Math 1371 or Concurrent registration is required (or allowed) in Math 1571; Credit will not be granted if credit has been received for: PHYS 1201W; Meets CLE req of Physical Sciences; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: This is the first of a three semester introductory course in physics for students in sciences and engineering. 1301W/1302W, 2303 or 2503 is designed to prepare you for work in your field by: building a solid conceptual understanding of fundamental principles of physics, and their applications; applying those principles to new situations, using logical reasoning and quantitative problem-solving skills; learning to communicate technical information effectively. To achieve these goals, this course requires you to understand the material in depth. 1301W will emphasize the study of mechanical systems, beginning with the description of motion of interacting objects, the forces that they exert on each other and the quantities that are conserved in those interactions. A laboratory is included to allow you to apply physical principles to the real world in a carefully controlled environment, and will also emphasize technical communications skills. A discussion section will give you the opportunity to clarify your conceptual understanding, and practice your problem solving skills, by practicing theoretical problems with other students. This is a calculus-based course, and students will be expected to use the basic concepts of differential and integral calculus, as well as algebra and trigonometry.
allowed) in Math 1271 or Concurrent registration is required (or allowed) in Math 1371 or Concurrent registration is required (or allowed) in Math 1571; Credit will not be granted if credit has been received for: PHYS 1201W; Meets CLE req of Physical Sciences; meets CLE req of Writing Intensive; Instructor: Marshak, Marvin L
Description: This is the first of a three semester introductory course in physics for students in sciences and engineering. 1301W/1302W, 2503 is designed to prepare you for your field by: building a solid conceptual understanding of fundamental principles of physics, and their applications; applying those principles to new situations, using logical reasoning and quantitative problem-solving skills; learning to communicate technical information effectively. To achieve these goals, this course requires you to understand the material in depth. The emphasis will always be on the application of physics to real life situations, and most of the problems will be designed to simulate such situations. 1301W will emphasize the study of mechanical systems, beginning with the description of motion of interacting objects and the forces that they exert on each other. A laboratory is included to allow you to apply physical principles to the real world in a carefully controlled environment. The laboratory will also emphasize technical communications skills. A discussion section will give you the opportunity to clarify your conceptual understanding, and practice your problem-solving skills. This is a calculus-based course, and students will be expected to use the basic concepts of differential calculus, as well as algebra and trigonometry. Please see particular syllabus for course information. Exam Format: A combination of quantitative problem solving and short qualitative statements or multiple choice.

PHYS 1302W Introductory Physics for Science and Engineering II
4 credit(s); prereq 1301W. Concurrent registration is required (or allowed) in Math 1272 or Math 1372 or Math 1572; Credit will not be granted if credit has been received for: PHYS 1202W; Meets CLE req of Physical Sciences; meets CLE req of Writing Intensive; Instructor: STAFF
Description: This is the 2nd of a 3 semester intro course in physics for students in science and engineering. 1302W emphasizes the application of the physical principles learned in 1301W to electrical and magnetic interactions. The course is designed to prepare you for work in your field by: having solid conceptual understanding of the way the real world works based on a few fundamental principles of physics; being able to solve realistic problems using logical reasoning and quantitative problem solving skills; applying those physics concepts and problem solving skills to new situations; and learning to effectively communicate technical information. To achieve these goals, this course requires you to understand the material in depth. Emphasis will be given to the application of physics principles to real-life situations, and will use problems designed to simulate such situations. This course assumes a good working knowledge of the concepts and skills in 1301W. Because of the nature of this material, this course will be more abstract and mathematical than 1301W. A lab is included to allow you to apply both the concepts and problem solving skills to the real world. It will also emphasize technical communications skills. A discussion section will give you the opportunity to discuss your conceptual understanding and practice your problem solving skills with other students.

PHYS 1401V Honors Physics I
4 credit(s); prereq honors student and permission of University Honors Program; Credit will not be granted if credit has been received for: PHYS 1201V; Meets CLE req of Physical Sciences; meets CLE req of Writing Intensive; Instructor: Crowell, Paul A
Description: Student may contact the instructor or department for information.

PHYS 1905 Freshman Seminar: Physics and Technology for Future Presidents
A-F only, 1-3 credit(s), max credits 6; prereq Fr;
Instructor: Marshak, Marvin L
Description: Student may contact the instructor or department for information.

PHYS 1905 Freshman Seminar: Quantum Physics for Everyone
A-F only, 1-3 credit(s), max credits 6; prereq Fr;
Instructor: Goldman, Allen M
Description: Student may contact the instructor or department for information.

PHYS 1905 Freshman Seminar: From Bongo to Brain
A-F only, 1-3 credit(s), max credits 6; prereq Fr;
Instructor: Broadhurst, John Henry
Description: Student may contact the instructor or department for information.

PHYS 1910W Freshman Seminar: Writing Intensive: Evolution, A Physicist's Point of View
A-F only, 2 credit(s), max credits 3, 1 completion allowed; prereq freshman; Meets CLE req of Writing Intensive; Instructor: Halley, J Woods
Description:

PHYS 2201 Introductory Thermodynamics and Statistical Physics
3 credit(s); prereq [1302W or 1402V], Concurrent registration is required (or allowed) in MATH 1272 or MATH 1372 or MATH 1572H; Instructor: Hanany, Shaul
Description: Introduction to thermodynamics, including its underlying statistical nature. Topics will include Kinetic Theory, Thermodynamics, Phase Transitions, and Boltzmann statistics. Applications explored will include the behavior of gases and the operation of heat engines.

PHYS 2311 Modern Physics
4 credit(s); prereq [1302 or 1402], Chem 1022, Math 2243; Instructor: Cassola, Robert L
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. The purpose of this course is to acquaint you with some of the principles by which the physical world operates, and to enable you to apply these principles to a number of different situations. It is hoped that, without a great deal of mathematical complexity, you will be able to see how these general principles extend to other fields. This course will stress being able to do things - simple problems, numerical estimates, and prediction of events. These skills only come with practice, so that, necessarily, this course is built around working problems. Style: This is a printed correspondence section. Grading: 40% mid exam, 40% final exam, 20% written homework. S/N students must earn at least 70 percent to receive a grade of S.
Exam Format: Supervised, in-person exams

PHYS 2403H Honors Physics III
4 credit(s); prereq 1402V, honors student and permission of University Honors Program; Credit will not be granted if credit has been received for: PHYS 2303; Instructor: Walsh, Thomas Francis
Description: This is the conclusion of a three semester introductory course in physics for students in the IT Honors Program. It is designed to prepare you for work in your field by: having solid conceptual understanding of the way the real world works based on a few fundamental principles of physics; being able to solve realistic problems using logical reasoning and quantitative problem solving skills; applying those physics concepts and problem solving skills to new situations; and learning to effectively communicate technical information. The pace is faster than Physics 2503 and at a higher mathematical level. The emphasis will always be on the application of physics principles to interesting situations, and the problems will be designed to simulate such situations. 2403H will emphasize the
applications of physics that have been important in the 20th century, including electromagnetic waves, optics, special relativity and quantum theory. This course assumes a good working knowledge of the concepts and skills in 1402V. A discussion section will give you the opportunity to discuss your conceptual understanding and practice your problem solving skills.

PHYS 2503 Physics III: Intro to Waves, Optics, and Special Relativity
4 credit(s); prereq 1302W, [MATH 1272 or MATH 1372 or MATH 1572H]; Credit will not be granted if credit has been received for: PHYS 2303;
Instructor: Huang, Cheng-Cher
Description: This is the third semester of a 4-semester introductory course in physics for students in sciences and engineering began with Physics 1301W/1302W and is completed by Physics 2601 in the following semester. The topics include: mechanical and electromagnetic waves, optics, and special relativity. Thermodynamics is covered at the sophomore level in the 3-credit Physics 2201 course, and is therefore not included in 2503. This course is recommended for physics majors, aero-engineering students, and anybody who plans to take Phys 2601 as their introduction to quantum physics. Students who plan to take only 3 semesters of physics, should take Physics 2303.

PHYS 3071W Laboratory-Based Physics for Teachers
4 credit(s); prereq College algebra; no credit for CSE students; Meets CLE req of Physical Sciences; meets CLE req of Writing Intensive;
Instructor: Campbell, Charles E
Description: This course is intended to provide an experience based introduction to a selection of fundamental physics concepts especially chosen to be useful for potential elementary school teachers. These fundamental concepts include the interaction between objects and the description of that interaction by energy, forces, and fields. These ideas will be applied to electricity and magnetism as well as optics and heat. The course is activity-based and collaboration-oriented with four major goals: (1) to help you construct a set of physics ideas that you can apply to explain phenomena that are intrinsically interesting at a level appropriate to an elementary school science curriculum; (2) to help you understand the process of doing science; (3) to give you practice and confidence in doing science, and (4) to link the development of the course material to your own learning. The teaching and learning strategies used in this course will be valuable and appropriate for use in your teaching career. No specific background in science or mathematics is assumed in this course.

PHYS 4001 Analytical Mechanics
4 credit(s); prereq [2303 or 2601 or Chem 3501 or Chem 3502]; two sems soph math;
Instructor: Cronin-Hennessy, Daniel P
Description: The course emphasizes a mathematically sophisticated reformulation of Newtonian mechanics. This course develops the skills of solving the difficult problems that arise in complex mechanical systems using advanced mathematical techniques. Applications include oscillators, orbital dynamics, and rigid body dynamics. This course serves as an introduction to the Lagrangian formulation of dynamics. Mathematics beyond the prerequisite mathematics courses are developed as required. The knowledge of physics learned in Physics 2303, 2403, or 2503 is assumed. A discussion section will give you the opportunity to discuss your conceptual understanding and practice your problem solving skills in collaboration with other students.

PHYS 4051 Methods of Experimental Physics I
5 credit(s); prereq 2605 or equiv lab experience or instr consent;
Instructor: Mans, Jeremiah M
Description: This course is the first of a two semester sequence on the techniques used in a modern physics laboratory. Most of the work will be done in a laboratory. In this semester you will gain experience using analog and digital electronics by building various circuits that are in wide-spread use. You will also learn about acquiring signals and interfacing them to a computer. Basic familiarity with computers is assumed. Programming languages such as C++ will be used and skill in using them can be gained either through independent study during the course or from previous experience. Emphasis is also given to refining the techniques of writing scientific research reports suitable for publication. The course is designed for science and engineering students who have successfully completed Physics 2605 or the equivalent and assumes the knowledge and skills developed in that course. This course is an excellent introduction to modern laboratory techniques for upper division and graduate students in various scientific or technological fields. It is a required class for Physics and Astrophysics Majors.

PHYS 4101 Quantum Mechanics
4 credit(s); prereq [2303 or 2601 or Chem 3502], two sems soph math;
Instructor: Valis, Oriol T
Description: This course in quantum mechanics will focus on using the Schrodinger Equation to predict the behavior of atomic and subatomic systems. The knowledge and skills learned in Physics 2601 are assumed. Mathematics beyond the prerequisite mathematics courses are developed as required. Topics addressed include the behavior of systems with a potential to predict the decay and scattering of particles, quantized angular momentum and its relationship to spin, the energy states of atoms, and the properties of materials. The course will introduce approximation methods such as Perturbation Theory and the Variational Technique. A discussion section will give you the opportunity to discuss your conceptual understanding and practice your problem solving skills in collaboration with other students.

PHYS 4201 Statistical and Thermal Physics
3 credit(s); prereq 2601;
Instructor: Goldman, Allen M
Description: This course is an introduction to the statistical nature of the behavior of matter both from the classical and quantum point of view. The knowledge and skills learned in Physics 2303, 2402, or 2503 as well as those from Physics 2601 are assumed. Mathematics beyond the prerequisite mathematics courses are developed as required. Topics addressed include: the enumeration of states both classically and quantum mechanically, entropy and free energy, partition functions, phase transitions, and the behavior of gasses and solids.

PHYS 4303 Waves, Optics, and Relativity
3 credit(s); prereq 4001, 4002;
Instructor: Cushman, Priscilla Brooks
Description: This course emphasizes the applications of wave phenomena to describe many aspects of nature. The knowledge and skills learned in Physics 2303, 2403H, or 2503 as well as those from Physics 4002 are assumed. Mathematics beyond the prerequisite mathematics courses are developed as required. A variety of applications of includes topics such as sound, water waves, tsunamis, electromagnetic radiation, and optics. The course will also explore Special Relativity which arises from the behavior of the wave solution of Maxwell’s equations.

PHYS 4501 Experimental Project
1-5 credit(s), max credits 5, 1 completion allowed; prereq 4052, instr consent;
Instructor: STAFF
Description: This course is an independent experimental project designed by a student in collaboration with a faculty member.

PHYS 4621 Introduction to Plasma Physics
3 credit(s); prereq [4001, 4002] or equiv or instr consent;
Instructor: Wygant, John R
Description: This is an introductory course in plasma physics. Topics covered in this course include basic properties of collisionless, magnetized plasmas, single particle motion, plasmas as fluids, waves in plasmas, equilibrium, instabilities, mechanisms for particle energization, kinetic theory, shocks,
PHYS 4960H Honors Seminar
OPT No Aud, 1 credit(s), max credits 2; prereq Upper div honors, instr consent;
Instructor: Walsh, Thomas Francis
Description: Student may contact the instructor or department for information.

PHYS 5001 Quantum Mechanics I
4 credit(s); prereq 4101 or equiv or instr consent;
Instructor: Qian, Yongzhong
Description: Student may contact the instructor or department for information.

PHYS 5011 Classical Physics I
4 credit(s); prereq 4001, 4002 or instr consent;
Instructor: Lysak, Robert L
Description: This is the first semester of a two-semester sequence of Classical Physics, intended primarily for first-year graduate students in physics and astrophysics. Preparation at the level of Phys 4001-4002 is assumed. Material to be covered includes Classical Mechanics, emphasizing Lagrangian and Hamiltonian techniques to solve problems in orbital mechanics, rigid body motion, oscillations and nonlinear dynamics, as well as Electrostatics including dielectric materials.
Exam Format: problem solving

PHYS 5022 Relativity, Cosmology, and the Universe
4 credit(s); prereq 2601 or instr consent; Credit will not be granted if credit has been received for: AST 5022;
Instructor: Williams, Liliya L P
Description: In this course, we will explore the evolution of the Universe from the beginning to the present day, and will cover the standard theory and observations as well as the latest developments in cosmology. Specific topics include: the global geometry and dynamics, inflation, baryogenesis, big bang nucleosynthesis, cosmic microwave background radiation, gravitational instability and structure formation. The course is intended for graduates and upper-level astronomy and physics undergraduates.
Style: 90% Lecture, 10% Discussion.
Grading: 20% mid exam, 25% final exam, 20% in-class presentation, 10% participation, 25% problem solving.
Exam Format: Problems, some short answer questions.

PHYS 5041 Mathematical Methods for Physics
4 credit(s); prereq 2601 or grad student;
Instructor: Halley, J Woods
Description: Student may contact the instructor or department for information.

PHYS 5072 Best Practices in College Physics Teaching
1-3 credit(s), max credits 5, 3 completions allowed;
Instructor: Campbell, Charles E
Description: Student may contact the instructor or department for information.

PHYS 5201 Thermal and Statistical Physics
A-F only, 3 credit(s); prereq [(4101, 4201) or equiv] previous exposure to thermodynamics, introductory statistical physics;
Instructor: Kakalos, James
Description: Student may contact the instructor or department for information.

PHYS 5980 Introduction to Research Seminar
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq Grad or upper div phys major;
Instructor: Fortson, Lucy Frear
Description: Student may contact the instructor or department for information.

PHYS 8001 Advanced Quantum Mechanics
3 credit(s); prereq 5002 or instr consent;
Instructor: Kapusta, Joseph I
Description: This course will cover the following topics: path integral approach to quantum mechanics; second quantization; fermion and boson many-particle systems, including the interacting Fermi gas and superfluidity; correlation functions, scattering and linear response; Dirac equation, including solution of the hydrogen problem; massless fermions and neutrino mixing.

PHYS 8012 Quantum Field Theory II
3 credit(s); prereq 8011 or instr consent;
Instructor: Vainshtein, Arkady
Description: Student may contact the instructor or department for information.

PHYS 8501 General Relativity and Cosmology I
3 credit(s); prereq 5012 or instr consent;
Instructor: Olive, Keith A
Description: Student may contact the instructor or department for information.

PHYS 8700 Seminar: Condensed Matter Physics
S-N only, 1 credit(s), max credits 6, 6 completions allowed; prereq instr consent;
Instructor: Dahlberg, Daniel D
Description: Students enrolled for 8700 must attend the Condensed Matter Seminar on Thursdays at 1:25pm and the Condensed Matter Sack Lunch Seminar on Tuesdays at 12:20pm every week. In addition, students registering must present a Tuesday Sack Lunch for each registration. If a student enrolls for 8700 twice in one academic year then one of the two required presentations can be presented in the following academic year.

PHYS 8711 Solid-State Physics I
3 credit(s); prereq 4211, 5002 or instr consent;
Instructor: Shkolovskii, Boris I
Description: Student may contact the instructor or department for information.

PHYS 8901 Elementary Particle Physics I
3 credit(s); prereq 8001 or instr consent;
Instructor: Voloshin, Mikhail Borisov
Description: Student may contact the instructor or department for information.

PHSL 3051 Human Physiology
3 credit(s); prereq [BIOC 1009 or 1 yr college biol], 1 yr college chem;
Instructor: Anderson, Lisa Carney
Description: Human Physiology is a 4 credit class designed for science majors and pre-allied health sciences majors. This course covers basic science principles of cell transport, cell signaling and major organ systems (nerve, muscle, circulation, respiration, endocrine, renal, gastrointestinal, energy metabolism). Preparation in basic chemistry (two semesters) and biology (one semester) is strongly recommended. Three lecture sessions and one two-hour lab per week. See the following URL for a sample syllabus:
See our department website for more information about registration.
http://physiology.med.umn.edu/courses/phsl3051/3051Registration.html
Style: 70% Lecture, 5% Film/Video, 10% Laboratory, 5% Small Group Activities, 10% Demonstration. Three hours of lecture per
PHSL 3061 Principles of Physiology
4 credit(s); prereq 1 year college chem and physics and math through integral calculus;
Instructor: Anderson,Lisa Carney
Description: Student may contact the instructor or department for information.

PHSL 3062W Research Paper for Physiology Majors
A-F only, 1 credit(s); prereq Concurrent registration is required (or allowed) in 3061, physiology major, 1 yr [college chem, physics], math through integral calculus; Meets CLE req of Writing Intensive;
Instructor: Barnett, Vincent A
Description: Student may contact the instructor or department for information.

PHSL 3095 Problems in Physiology
1-5 credit(s), max credits 20, 20 completions allowed; prereq concurrent enrollment in college physiology, instr consent;
Instructor: Barnett, Vincent A
Description: Student may contact the instructor or department for information.

PHSL 3701 Physiology Laboratory
A-F only, 2 credit(s); prereq Physiology major; Credit will not be granted if credit has been received for: BMEN 3701;
Instructor: Laizzo PhD, Paul Anthony
Description: Student may contact the instructor or department for information.

PHSL 4095H Honors Problems in Physiology
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed; prereq Concurrent registration is required (or allowed) in 3061, physiology honors candidate, approval of director of undergrad studies in physiology;
Instructor: Barnett, Vincent A
Description: Student may contact the instructor or department for information.

PHSL 4900 Advanced Physiology Teaching Laboratory
A-F only, 1-6 credit(s), max credits 12; prereq [3051 or [3061, 3071]], instr consent;
Instructor: Katz, Stephen A.
Description: Student may contact the instructor or department for information.

PHSL 5061 Principles of Physiology for Biomedical Engineering
4 credit(s); prereq Biomedical engineering grad, one yr college chem and physics and math through integral calculus;
Instructor: Anderson, Lisa Carney
Description: Student may contact the instructor or department for information.

PHSL 5094 Research in Physiology
1-5 credit(s), max credits 20, 20 completions allowed; prereq instr consent;
Instructor: Barnett, Vincent A
Description: Student may contact the instructor or department for information.

PHSL 5094 Research in Physiology
1-5 credit(s), max credits 20, 20 completions allowed; prereq instr consent;
Instructor: Katz, Stephen A.
Description: Student may contact the instructor or department for information.
PBIO 4793W Directed Studies: Writing Intensive
S-N only, 1-7 credit(s), max credits 7, 7 completions allowed;
prereq instr consent; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description:

PBIO 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description:

PBIO 4993 Directed Studies
S-N only, 1-7 credit(s), max credits 7, 7 completions allowed;
prereq instr consent;
Instructor: STAFF
Description: Contract between student and advisor required, plus department approval. Credits arranged.

PBIO 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent ;
Instructor: Olszewski,Neil E
Description: Student may contact the instructor or department for information.

PBIO 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent ;
Instructor: Weiblen,George D
Description: Student may contact the instructor or department for information.

PBIO 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent ;
Instructor: Gleason,Florence K
Description: Student may contact the instructor or department for information.

PBIO 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent ;
Instructor: Springer,Nathan Michael
Description: Student may contact the instructor or department for information.

PBIO 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent ;
Instructor: Marks,M David
Description: Student may contact the instructor or department for information.

PBIO 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent ;
Instructor: Lefebvre,Paul A
Description: Student may contact the instructor or department for information.

PBIO 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent ;
Instructor: Mc Laughlin,David J
Description: Student may contact the instructor or department for information.

PBIO 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent ;
Instructor: Biesboer,David D.
Description: Student may contact the instructor or department for information.

Plant Biology
220 Biological Sciences Center

PBIO 4321 Minnesota Flora
3 credit(s); prereq One semester college biology;
Instructor: Weiblen,George D
Description: Identification of common plants of Minnesota and surrounding region; recognition of local plant families; collection and preparation of plant specimens; use of tools for plant identification including floras and digital keys. Includes lectures, laboratory exercises and field trips.
Style: 40% Lecture, 40% Laboratory, 20% Field Trips. field trips
Grading: 20% mid exam, 20% final exam, 15% special projects, 5% class participation, 20% laboratory evaluation, 20% other evaluation. Other Evaluation - 20% final lab exam
Exam Format: short answer, lab practical

PBIO 4321 Minnesota Flora
3 credit(s); prereq One semester college biology;
Instructor: Moeller,David
Description: Identification of common plants of Minnesota and surrounding region; recognition of local plant families; collection and preparation of plant specimens; use of tools for plant identification including floras and digital keys. Includes lectures, laboratory exercises and field trips.
Style: 40% Lecture, 40% Laboratory, 20% Field Trips. field trips
Grading: 20% mid exam, 20% final exam, 15% special projects, 5% class participation, 20% laboratory evaluation, 20% other evaluation. Other Evaluation - 20% final lab exam
Exam Format: short answer, lab practical

PBIO 4794 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 completions allowed; prereq instr consent; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description:
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor(s)</th>
<th>Style</th>
<th>Exam Format</th>
<th>Grading</th>
<th>Credit(s)</th>
<th>Pre-reqs</th>
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<td>PBIO 4994</td>
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<td>PBIO 4994</td>
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<td>PBIO 4994</td>
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<td>PBIO 4994</td>
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<td>PBIO 4994</td>
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<td>Instructor: Tiffin, Steve</td>
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<td>PBIO 4994</td>
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<td>PBIO 5301</td>
<td>Plant Genomics</td>
<td>Instructor: Young, Nevin Dale</td>
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<td>Intro course in genetics, intro course in biochemistry</td>
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<td>PBIO 5309</td>
<td>Molecular Ecology And Ecological Genomics</td>
<td>Instructor: Tiffin, Peter L</td>
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<td>3</td>
<td>BIOL 3407 or BIOL 3409 or BIOL 4003</td>
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This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
important variation, etc.). The course is aimed to provide students with the knowledge needed to evaluate their strengths and weaknesses of techniques and analyses as well as the types of questions molecular tools are being used to answer. The scope of topics to be covered will depend in part on the experience and interests of the students. The course will involve lectures, student presentations, and discussion of papers. There will be considerable opportunities for students to focus on areas of their interest.

Style: 50% Lecture, 20% Discussion, 20% Small Group Activities, 10% Student Presentation.

PBIO 5412 Plant Physiology
3 credit(s); prereq Biol 2022 or Biol 3002 or Biol 3007, Biol/Bioic 3021 or Bioic 4331; Instructor: Gantt, Steve
Description: Plant Physiology 5412 is designed for advanced undergraduates and first year graduate students. The course is focused on physiological processes that are specific to plants. A background understanding of genetics and biochemistry is expected. Topics include mechanisms of plant water relations, vascular transport in the xylem and phloem, photosynthesis and respiration, responses to environmental stimuli such as drought, plant mineral nutrition and membrane transport, cell wall structure, plant growth and development including responses to light and hormones. Grades are based on four non-cumulative exams including the final exam.

Style: 100% Lecture.
Grading: 25% mid exam, 25% final exam, 50% other evaluation. two additional exams during the semester
Exam Format: Mostly short answer, some multiple choice, some problems solving.

PBIO 5412 Plant Physiology
3 credit(s); prereq Biol 2022 or Biol 3002 or Biol 3007, Biol/Bioic 3021 or Bioic 4331; Instructor: Ni, Min
Description: Plant Physiology 5412 is designed for advanced undergraduates and first year graduate students. The course is focused on physiological processes that are specific to plants. A background understanding of genetics and biochemistry is expected. Topics include mechanisms of plant water relations, vascular transport in the xylem and phloem, photosynthesis and respiration, responses to environmental stimuli such as drought, plant mineral nutrition and membrane transport, cell wall structure, plant growth and development including responses to light and hormones. Grades are based on four non-cumulative exams including the final exam.

Style: 100% Lecture.
Grading: 25% mid exam, 25% final exam, 50% other evaluation. two additional exams during the semester
Exam Format: Mostly short answer, some multiple choice, some problems solving.

PBIO 5960 Special Topics: Biological applications of next-generation sequenc
1 credit(s), max credits 18, 6 completions allowed; prereq Plant biology course;
Instructor: Springer, Nathan Michael
Description: Student may contact the instructor for information.

PBIO 5960 Special Topics: PBS Itasca Orientation
1-3 credit(s), max credits 18, 6 completions allowed; prereq Plant biology course;
Instructor: Shaw, Ruth Geyer
Description: Student may contact the instructor for information.

Plant Pathology
495 Borlaug Hall

PLPA 100S Plants Get Sick Too

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Fall 2010

- **Style:** 60% Lecture, 20% Discussion, 20% Laboratory. Frequent small group activities and computer labs
- **Grading:** 30% mid exam, 30% final exam, 15% special projects, 15% written homework. 10% class participation.
- **Exam Format:** Approximately 10 short answer questions plus one or two longer essay-type questions.

**PLPA 5444 Ecology, Epidemiology, and Evolutionary Biology of Plant-Microbe Interactions**
A-F only, 3 credit(s); prereq Intro plant pathology or advanced biology coursework recommended;  
**Instructor:** Kinkel,Linda Lee  
**Description:** Student may contact the instructor or department for information.

**PLPA 5480 Principles of Plant Pathology**
3 credit(s); prereq BIOL 1009 or equiv;  
**Instructor:** Shekhar,Sanjay  
**Description:** Student may contact the instructor or department for information.

**PLPA 5999 Special Workshop in Plant Pathology**
1-4 credit(s), max credits 4, 1 completion allowed;  
**Instructor:** STAFF  
**Description:** Special workshops involving current issues and/or techniques (experimental and laboratory) in plant pathology. Directed towards senior undergraduates and graduate students.  
**Style:** Depends on the nature of the workshop experience.  
**Grading:** 100% special projects. Depends on the nature of the workshop experience.

**POL 1001 American Democracy in a Changing World**
4 credit(s); Meets CLE req of Social Sciences;  
**Instructor:** Abernathy,Scott F  
**Description:** This course is intended to introduce students to the expressed hopes of the American people for their government and to the institutions and processes that have been created and recreated to achieve these hopes. What do we mean by good government? Have we achieved it? How do we build it? Through an examination of the roles of American political institutions and the behavior of American citizens, we will be able to critically reflect on issues such as political and economic inequality in the U.S., the role of American political and economic power in the world, and the possibility for an American public policy that lives up to the ideals of the founders. By the end of the semester students should have a basic understanding of the structure and function of American government as well as an increased ability to critically reflect on the degree to which our institutions, processes, and citizens live up to the expectations placed on them.  
**Style:** 60% Lecture, 20% Discussion, 20% Small Group Activities.  
**Grading:** 50% mid exam, 25% final exam, 25% reports/papers.

**PLSH 1101 Beginning Polish**
3 credit(s); prereq Fourth sem course in another language or grad student; Credit will not be granted if credit has been received for: PLSH 1101;  
**Instructor:** Polakiewicz,Leonard Anthony  
**Description:** Student may contact the instructor or department for information.
American politics and the discipline of political science. It is intended to generate interest in politics through a study of the institutions and processes of government, the parties and actors who struggle with one another to control those institutions, and the ideas and controversies that animate politics in the United States. Topics of study include the constitution, civil rights and civil liberties, Congress, the presidency, the judiciary, political participation, and public policy. The course will pay particular attention to the values and identities that shape what it means to be an American, as well as who is and who is not represented in politics. Students should come away from the course with an enhanced understanding of American democracy and a framework for forming their own opinions about politics. Style: 50% Lecture, 25% Discussion, 25% Small Group Activities. Grading: 25% mid exam, 25% final exam, 40% reports/papers, 10% class participation.

POL 1001H Honors Course: American Democracy in a Changing World 4 credit(s); Meets CLE req of Social Sciences; Instructor: Strolovitch,Dara Description: Who gets what from government? What major doctrines and controversies animate American politics? Why do economic and social inequalities persist? How can we influence public policy? This course takes up these questions through an examination of the political institutions, policies and political processes of national politics in the United States. We will explore topics including: the ideas underlying the nation’s founding; the nature of constitutional federalism; creative and civil liberties; the role of the US in an increasingly globalized world; political parties, elections, interest groups and social movements; the politics of race, ethnicity, class, gender, national origin, and sexuality; the policymaking process; public opinion and voting behavior; and the Presidency, Congress, and the Courts. By the end of the semester, students should understand the structure and function of government in the US and should have an increased ability to critically reflect on the degree to which democracy in the US lives up to its promises. Style: 30% Lecture, 50% Discussion, 20% Small Group Activities.

POL 1019 Indigenous Peoples: A Global Perspective A-F only, 3 credit(s); Credit will not be granted if credit has been received for: AMIN 1002; Meets CLE req of Global Perspectives; Instructor: Wilkins,Dave Description: This course focuses on the social, cultural and political relationship between selected indigenous peoples and the nation-states that settled in their territories and explores the various ways these states attempted to exterminate, incorporate, and segregate the native peoples they encountered. This class can be taken as an American Indian Studies course or a Political Science Studies course. It has been cross-listed. This course fulfills CLE requirements of Global Perspectives Theme.

POL 1025 Global Politics 4 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Social Sciences; Instructor: Krebs,Ronald R Description: Americans hardly need to be told that international politics matters. US forces are at war in Iraq and Afghanistan, and economic uncertainty has spread like a contagion around the globe. Knowing that international politics matters is one thing, making sense of it is another. This course will give students the tools they need to begin to understand patterns and trends in global politics. Students will be introduced to international relations’ theoretical traditions, but the course will focus primarily on explaining and understanding historical and especially current problems in world politics. It will explore, among other issues, the causes of war and peace, the limited use of force, humanitarian intervention, nuclear proliferation, nationalist conflict, international ethics, the politics of international trade and finance, foreign aid, globalization, the prospects for environmental cooperation and human rights norms, migration, terrorism, and the future of world politics. By the end of the course, students should be familiar with all these issues and others, should have developed their own views on these much-debated questions, and should be able to apply basic analytical frameworks to answer them. Style: 90% Lecture, 10% Discussion. Grading: 50% mid exam, 45% final exam, 5% class participation. Exam Format: Identifications; short paragraphs; essays.

POL 1025 Global Politics 4 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Social Sciences; Instructor: Hoffman,Mark N Description: Student may contact the instructor or department for information.

POL 1026 We and They: U.S. Foreign Policy 4 credit(s); Instructor: Sampson III,Martin Wright Description: The course is a mixture of historical background, examination of various processes and institutions that determine US foreign policy, and selected foreign policy issues that are important in fall 2009. The course objectives are that people leave the course (1) aware of how the US foreign policy process operates and aware of major, long-running debates about Congressional-Executive relationships in that process; (2) aware of the contours of public opinion as it relates to foreign policy; (3) conversant with major events and dates in the history of US foreign policy; and (4) able to think about how this knowledge relates to selected events of fall 2009 and beyond. Style: 65% Lecture, 35% Discussion. Class attendance is important. Lectures and readings supplement each other. Grading: 20% mid exam, 35% final exam, 35% reports/papers, 10% other evaluation. The course papers are based on readings assigned in the syllabus. Exam Format: Combination essay and short answer. A handout sheet is provided a week in advance.

POL 1054 Repression and Democracy Around the World 4 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Social Sciences; Instructor: Shively,W Phillips Description: This course introduces political science through the comparative study of politics in various countries. There is a considerable emphasis on democracy and how it works -- including comparison and contrast with how politics works in nondemocratic regimes. We will look at all aspects of politics -- the nature of political power, how politics is lodged in the state, various ways to organize at the mass level and to govern, the nature of justice, etc. The class will consist of three lecture sessions a week. The course is appropriate for both majors and non-majors.

POL 1201 Political Ideas and Ideologies 4 credit(s); Meets CLE req of Civic Life and Ethics; meets CLE req of Historical Perspectives; Instructor: Winham,Ilya P Description: Student may contact the instructor or department for information.

POL 1905 Freshman Seminar: Fat Nation:PolEcon of America's Obesity Epidemic 3 credit(s); Instructor: Rahn,Wendy Marie Description: Student may contact the instructor or department for information.

POL 1905 Freshman Seminar: Finding Puzzles & Explanations in Everyday Life 3 credit(s); Instructor: Shively,W Phillips Description: Finding Puzzles and Explanations in Everyday Life. This seminar will train your eyes for puzzles in the world around you, and provide you with several types of models by which they can be explained. An example would be: In the past several elections, the Republican candidate for President has done...
better among upper income groups than among the poor. However, the 'red states' that tend Republican in Presidential elections (Mississippi, Texas, Idaho, etc.) are mostly a good deal poorer than the 'blue states' that tend Democratic (Connecticut, Massachusetts, California, etc.) How can we explain this paradox? We will work through many puzzles, and look at a variety of models that can help explain them. Among other things, we will read some of the work of Steven Levitt (Freakonomics) and Malcolm Gladwell (Tipping Point). The format will be mainly discussion, with occasional lectures about particular tools students can use. Many of the puzzles will be outside the realm of politics, but as much as possible we will emphasize political ones. Evaluation for the course will be by weekly problem sets, plus a paper. High school algebra, but not calculus, will be a necessary tool for the course.

POL 1905 Freshman Seminar: Islam and Democracy 3 credit(s);
Instructor: Collins,Kathleen A
Description: The relationship between Islam and politics? Is Islam a threat to democracy? Can Muslim countries become democratic? Both in the Muslim world and in the West -- these are some of the most important political issues of our day. Especially since 9/11, scholars and policy makers around the world have been debating the compatibility or conflict between Islam and democracy, the roots and causes of rising and spreading anti-democratic Islamist movements, the causes of terrorism and suicide bombings, and the clash or compatibility of "Muslim" and "Western" cultures. This class will address these issues by taking a historical and political look at the development of Islam (the religion) in relationship to the state. We will begin by discussing the Islamic faith and its historical relationship to politics. Then we will turn to the twentieth century, and examine the rise of Islamist politics in the Middle East and North Africa (Egypt, Iran, Saudi Arabia, Palestine, Sudan, Iran) and south central Asia (Pakistan, Afghanistan) from the 1950s-1980s, and also the failure of many Islamist revolutions. We will examine the spread and rebirth of Islam in less traditional areas of the Muslim world, such as Eurasia (Central Asia, Russia, and the Caucasus). We will discuss and debate the rise of global jihadists, including Al Qaeda and other terrorist networks. We will look at the new jihads being waged in Iraq, and its implications for stability and democracy in the Middle East. We will examine cases of potential or actual democratization in the Muslim world (ex. Turkey), and the emerging concept of "Muslim democracy." Finally, we will focus on issues of great debate that affect the possibility for democracy in the Muslim world, such as gender equality. We will compare both Muslim and non-Muslim perspectives on these problems, and will observe the intense debate within the west as well as within the diverse Muslim world. Understanding these issues is critical to gaining perspective on the troubling state of today's complex global politics. We hope that this course will generate knowledge and understanding, and through that, tolerance and wisdom in dealing with these critical issues.
Style: 10% Lecture, 5% Film/Video, 70% Discussion, 5% Small Group Activities, 10% Student Presentation.

POL 3080 Faculty-Supervised Individual Internships A-F only, 3-13 credit(s), max credits 4, 1 completion allowed; prereq instr consent, dept consent;
Instructor: Soper,Paul W
Description: Students working in political or governmental internships may receive credit for academic work completed in association with their internship work. Students may receive 1 credit for every 3 hours (per week) of internship work. Academic work increases with increased hours worked. Assignments will include: weekly, 5-7 page essay, research paper. Acceptable internships include: US Congress, MN state legislature, federal, state, and local gov't agencies, as well as political parties, campaign organizations, and non-governmental advocacy groups. To enroll in this course, students must first arrange their internship, and then contact the instructor before the semester begins. Students who do not contact the instructor before the end of the first week of the semester will NOT be enrolled in this course.
Style: Fieldwork/Participant-observation

POL 3085 Quantitative Analysis in Political Science A-F only, 4 credit(s); Meets CLE req of Mathematical Thinking;
Instructor: Treier,Shawn A
Description: This course serves as an upper-level undergraduate introduction to how political scientists conduct empirical research to study political behavior and institutions. The objective of the course is to teach students how to interpret political phenomena from a systematic and analytical perspective. We consider issues of research design, hypothesis formulation, as well as study basic statistical techniques and analyze political science data. After completion of the course, students will be able to interpret data analyses presented in newspapers, magazines and basic government and academic studies. Students will also be prepared to conduct an empirical senior paper or honors thesis.

POL 3225 American Political Thought 3 credit(s); Meets CLE req of Civic Life and Ethics;
Instructor: Soper,Paul W
Description: We will begin with an examination of Puritan political ideas, and remain attentive to the role of religious ideas on American political thought throughout the course. Next we will devote considerable time to the Revolutionary and Constitutional periods, focusing in particular on the arguments for and against ratification of the Constitution. Then we will move on to examine arguments over federalism and slavery, women's and workers' rights, as well as the emergence of romantic individualism. Finally, we will look at debates over the emergence of industrial society, the Populist, Progressive, and Socialist responses to it, and debates over racial equality. Prominent theorists covered include Winthrop, Franklin, Paine, Jefferson, Adams, Madison, Hamilton, the Anti-Federalist "Brutus," Emerson, Thoreau, Fuller, Calhoun, Fitzhugh, Douglass, Lincoln, Summer, Bellamy, DuBois, Goldman, Debs, Dewey, and King. Throughout the course we will be attentive to understanding not only particular political theories, but also how each thinker was influenced by past theories, and by the political, social, and economic context in which he or she wrote.
Style: 25% Lecture, 75% Discussion.
Grading: 25% mid exam, 40% final exam, 40% reports/papers.
Exam Format: Essay

POL 3252 American Political Thought 3-4 credit(s), max credits 4, 1 completion allowed; Meets CLE req of Arts/Humanities; meets CLE req of Civic Life and Ethics;
Instructor: STAFF
Description: Early Modern Political Thought - Professor Yves Winter This course introduces students to early modern European political philosophy and political thought from the Renaissance to the 18th century. Early modern political philosophy develops in some of the most turbulent and contentious epochs of European history, in a period shaped by religious warfare, by the demise of the Catholic Church's monopoly on truth and interpretation, by the emergence of the modern state and the capitalist mode of production, by the rise and fall of absolutism, and by the exploration and colonization of the Americas. In this course, we will discuss the crisis of political authority and the disintegration of medieval understandings of solidarity and community. We will study how political theorists and philosophers in Europe responded to this crisis, what proposals they developed to reconstitute political order and to address the fragmentation and factionalization of political and religious communities. The trajectory of this course will take us from the renewed interest in interpretation and reading generated by the Renaissance to the revolutionary demands for popular participation in the 18th century. We will examine the relations between practices of interpretation, claims of political authority, and the problem of sovereignty. Among the authors we will read in this course are Niccolo Machiavelli, Martin Luther, Thomas Hobbes, John Locke, and Jean-Jacques Rousseau.
Style: 50% Lecture, 50% Discussion.
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Fall 2010

**Grading:** 20% final exam, 60% reports/papers, 10% class participation, 10% other evaluation. Late papers will be docked one third of a letter grade for every day late, including weekends. Please note that students who do not complete all assignments or otherwise fail to meet these requirements will not receive a passing grade.

**Exam Format:** Take-home final examination.

**POL 3309 Justice in America**  
3 credit(s); prereq 1001 or 1002 or instr consent;  
Instructor: Johnson, Timothy Russell  
**Description:** The principal purpose of this course is to introduce you to the scientific study of judicial politics. Specifically, we will examine theoretical issues regarding judicial process and politics. This course, unlike constitutional law and civil liberties classes, does not study legal doctrine; rather, it examines political aspects of the legal system, with an emphasis on the social scientific literature on law and legal process.  
**Style:** 50% Lecture, 50% Discussion.  
**Grading:** 30% mid exam, 30% final exam, 30% reports/papers, 10% class participation.  
**Exam Format:** Essay

**POL 3325 U.S. Campaigns and Elections**  
A-F only, 3 credit(s);  
Instructor: Pearson, Kathryn Lynn  
**Description:** This course examines presidential and congressional campaigns and elections in the United States. We will explore how political scientists study and understand electoral politics. What theoretical generalizations can we make about candidates, voters, parties, and the media? In what ways do the electoral context and the “rules of the game” affect these processes? The 2008 elections promise to be exciting and historic for many reasons. Students will monitor the presidential campaigns and some congressional campaigns to assess how the theory and practice converge in 2008. Students will write a series of short papers analyzing specific elements of major campaigns and a research paper of at least ten pages that addresses one of the themes of the course.

**POL 3410 Topics in Comparative Politics: Theories of Political Economy**  
3 credit(s), max credits 9, 3 completions allowed;  
Instructor: Ansell, Benjamin William  
**Description:** This class introduces students to the theories of economics and politics that underlie debates between politicians and commentators in modern life. We begin by learning about the classic debates among economists and political scientists about the role of government in the market before moving to apply these theories to three important contemporary debates: the causes and response to the current financial crisis, what to do with the American healthcare system, and whether global tax policies threaten or benefit Americans. We begin by examining the history of economics, moving from Adam Smith and Karl Marx to the modern debate between Keynesian and neoclassical economics. Though these theories may seem arcane to you, they are fundamental to the current debate about the appropriate role of government and the decisions made today that will affect you over the next decades of your lives. We then turn to theories of politics to understand why politicians make particular choices in economic policy. Here we contrast rational choice theories of party behavior to theories that focus on state power to theories of culture and norms. In doing so we will discuss why political parties become successful, how they choose what policies to make, and how religion, norms, and theories of justice affect political life. We conclude by applying our theories of economics and politics to three contemporary debates: the financial crisis, the healthcare system, and the threats and opportunities of globalization.  
**Style:** 80% Lecture, 20% Discussion.

**POL 3451W Politics and Society in the New Europe**  
3 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Writing Intensive;  
Instructor: Gingrich, Jane Rebecca  
**Description:** This course will examine the politics of the European Union. In 1958, six European Countries joined together to form a common market. Fifty years later, the European Union now includes twenty seven European countries, and governs issues as diverse as trade, the environment, and immigration policy. Indeed, the EU has developed into one of the most important and interesting systems of contemporary governance. However, in recent years, the failure of the EU constitution, discontent among new and old member states, and an uncoordinated response to the financial crisis, have raised questions about the future of the EU. This course introduces students to the European Union in three steps, looking at how its internal structure works, what areas it governs (and does not govern), and the challenges it faces the. The course combines careful analysis of the working of the European Union with weekly discussions of current events and key cases. In so doing, students will both learn about this crucial institution, and grapple with questions such as the nature of sovereignty, identity, democracy, and security in contemporary Europe.  
**Style:** 80% Lecture, 20% Discussion.  
**Grading:** 20% mid exam, 30% final exam, 40% reports/papers, 10% class participation.

**POL 3479 Latin American Politics**  
3 credit(s); prereq 1054 or instr consent; Credit will not be granted if credit has been received for: POL 5479; Meets CLE req of Global Perspectives;  
Instructor: Hilbink, Lisa  
**Description:** The course examines Latin American politics by introducing historical and contemporary patterns of democracy and development. It aims to help students understand the origins and effects of Latin America's "dual transitions" to political democracy and market-led economics in the 1980s-90s, analyzing the continued challenges to the deepening of democracy and to sustainable and equitable economic growth in the region. The course presents competing theoretical approaches and discusses them in the context of the political trajectories of four major Latin American cases: Argentina, Chile, Mexico, and Colombia. Readings on other countries will occasionally be assigned.  
**Style:** 70% Lecture, 30% Discussion.  
**Grading:** 20% mid exam, 25% final exam, 35% reports/papers, 20% class participation.  
**Exam Format:** Combo of multiple choice, IDs, and essay

**POL 3739 Politics of Race, Class, and Ethnicity**  
3 credit(s); prereq 6 cr in soc sci;  
Instructor: Nimtz Jr, August H  
**Description:** What similarities are there, if any, between the conflicts in the former Yugoslavia, South Africa, Northern Ireland, Rwanda, and Palestine/Israel? Why does racial and ethnic conflict persist in so many regions of the world? To what extent does racial conflict in the United States reflect the increasing disparities in wealth? How is racial/ethnic oppression similar and different from sexual oppression? These are some of the questions that this course will address and attempt to answer. This will be done primarily through a comparative analysis of racial/ethnic/class conflict in the United States, South Africa, and Cuba with particular attention on the experiences of Blacks in the three countries.  
**Style:** 75% Lecture, 25% Discussion.  
**Grading:** 25% mid exam, 50% final exam, 25% reports/papers.  
**Exam Format:** Essay.

**POL 3767 Political Psychology of Elite Behavior**  
3 credit(s); Meets CLE req of Civic Life and Ethics;  
Instructor: Sullivan, John L  
**Description:** In this course, we will examine the intersections of elite political decision-making, personality and social psychology. We will explore the usefulness of psychological theories for investigating the role of the individual, of group processes, and of the political context in decision-making by political leaders, particularly U.S. Presidents. We will examine how the personalities of political leaders affect the type and quality of their decision-making, how group processes can degrade or enhance good decision-making, how decision-makers employ historical analogies and broader metaphors when they decide the fate of nations. We will examine these general forces by...
conducing case studies of Presidential decision making, including the Bay of Pigs, Cuban Missile Crisis, Watergate, the Iranian Hostage Crisis, the Iran-Contra affair, the Gulf War, etc.

Style: 65% Lecture; 15% Film/Video; 20% Discussion.

Grading: 30% mid exam, 30% final exam, 30% reports/papers, 10% class participation.

Exam Format: Short answer and medium length essay

POL 3810 Topics in International Relations and Foreign Policy: Finding Puzzles & Explanations
3 credit(s), max credits 6;
Instructor: Gimbel, Edward William

Description: Student may contact the instructor or department for information.

POL 3835 International Relations
3 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Social Sciences;
Instructor: Duval, Raymond D

Description: This course is organized in three units: We begin the course with a unit on the question whether and how a world of stable, peaceful, and equitable international politics is coming into being? Can we speak sensibly of progress toward an international community based on international law? In what ways and to what extent, for example, is international politics premised on the universality of human rights? Can we foresee an effective international regime for the environment? The second unit concerns the crucial distinction between international and domestic politics? For that, we focus on the anarchic context of international politics to examine how the absence of authority and rule above states shapes insecurities and struggles for power. In this unit, we analyze how states play out the implications of the anarchic context in their political interactions of security, violence, and war, including the contemporary international politics of 'terrorism'. Whether international politics is understood differently if the systemic context is viewed as hierarchical rather than anarchical is the concern of the third unit. Here we ask whether and in what senses one can appropriately speak of empire as contemporary structure of international politics. How are imperial relations and other forms of hierarchy best analyzed? What is the significance of globalization and localized political movements for international politics? The principal objective of this course is for students to develop an appreciation of the ways in which various theoretical perspectives lead to different understandings of the structures and practices of world politics. Each of the perspectives that we address accepts the assumption that the many and varied interactions among states and non-state actors in the global arena are vital elements of our world. However, in interpreting these many and varied forms of world politics, each of the theories offers not only a unique accounting of why international relations take the form that they do, but also distinct guidance about what international political activity should be. Therefore, we investigate both the explanatory insights and the practical and normative political implications that distinguish each theoretical perspective. Through the highlighting of such theoretical differences, the course is intended to provide the means for students to develop their own theoretically informed analysis of issues in contemporary international relations, such as the changing security dynamics in the Middle East and Southwest Asia, whether a war on terrorism can be won, how the proliferation of nuclear weapons and other 'weapons of mass destruction' affects international stability or instability, the extent to which cooperation on global climate change, human rights, or poverty alleviation is possible, and in what ways the functioning of the global economy shapes the terms and conditions of international politics.

Style: 65% Lecture; 15% Film/Video, 25% Discussion, 5% Small Group Activities. Students do a few in-class writing assignments, or quizzes

Grading: 30% final exam, 55% reports/papers, 15% quizzes. two analytical papers, six pages each. Each worth 30% of total grade, but lower grade is reduced to count only 25% (for a total of 30% final exam, 55% reports/papers, 15% class participation.

Exam Format: take-home, essay format

POL 3873V Global Citizenship and International Ethics
3 credit(s); Meets CLE req of Civic Life and Ethics; meets CLE req of Writing Intensive;
Instructor: Sikkink, Kathryn A

Description: Should nations intervene in other countries to prevent famine or ensure human rights? Under what conditions is war justified? On what principles should immigration policies be based? Who should pay to avoid global environmental problems? Should wealthy states provide foreign aid or forgive the debts of poor countries? Is the possession of nuclear weapons morally and legally acceptable? What do we mean by global citizenship? How does an understanding of global citizenship influence how we answer ethical questions in international politics? This course will introduce you to different traditions of moral, legal, and political thought to provide you with the tools to make reasoned judgments about these kind of difficult political problems in global politics. Case studies of ethics in intervention, war, weapons, foreign aid, environmental practices, and human rights are used to examine global ethical responsibilities of individual citizens and public officials. We will discuss the effectiveness of transnational social movements in influencing policy at domestic/international levels. This course meets the CLE ethics and citizenship requirement. In it, you will both study ethics and citizenship in the abstract and you will apply these abstract frameworks to concrete instances in international politics. The course also meets the international perspectives CLE requirement. We will not only study a range of cases from different parts of the contemporary world, but will also compare similarities and differences in ethical traditions and ideas about citizenship in different regions of the world.

Style: 40% Lecture, 10% Film/Video, 20% Discussion, 20% Small Group Activities. 10% Student Presentation.

Grading: 30% mid exam, 10% reports/papers, 10% special projects, 40% reflection paper, 10% class participation.

Exam Format: essay questions and short answers

POL 4210 Topics in Political Theory
A-F only, 3 credit(s), max credits 6;
Instructor: STAFF

Description: Violence and the State - Professor Yves Winter Violence is at the heart of the modern state's capacity to guarantee order and maintain the rule of law. Effective control over the means of violence affords modern states the power to preserve peace and guarantee rights within their territories. On the other hand, the state's overwhelming capacity to inflict violence has the effect of turning the state (and specifically its military, penal, and security apparatuses) into a threat to the population (both domestic and foreign), to democracy, and to political and biological life in general. Historically, states have used the means of violence at their disposal for total war, colonial conquest, and to dominate and terrorize entire populations. In this course, we will explore how political theorists have approached the problem of how to control and manage violence. We will examine how these authors explain the sources, functions, and dynamics of violence; and we will critically assess their proposals for how violence should be wielded by and against the state. We will discuss the historical emergence of the state's monopoly of violence and its theoretical implications for a set of related questions and concepts: the distinction between international war and civil war; the treatment of internal and external enemies; the role and justification of punishment; and the relation between 'normal?' and 'criminal?' forms of violence. The readings will be organized according to the following thematic clusters: 1) violence and order; 2) war and civil war; 3) law and punishment; 4) state crimes and terror; and 5) violence and revolution. Authors will include a selection of the following: Aeschylus, Niccolo Machiavelli, Thomas Hobbes, Maximilien Robespierre, Carl von Clausewitz, Max Weber, Carl Schmitt, Frantz Fanon, Hannah Arendt, and Michel Foucault.

Style: 50% Lecture, 50% Discussion.

Grading: 90% reports/papers, 10% class participation. Late papers will be docked one third of a letter grade for every day late, including weekends. Please note that students who do not complete all assignments or otherwise fail to meet these requirements will not receive a passing grade.
POL 4275 Contemporary Political Thought
3 credit(s); prereq 1201 recommended;  
Instructor: Luxon,Nancy  
Description: Violence, Sex, Money, and Race: Political theory from the early 20th century onwards faces challenges in framing the conflicts and contestations that define contemporary politics. Drawing on the theoretical frameworks offered by Judith Shklar, Isaiah Berlin, Michel Foucault, Jürgen Habermas, and Charles Taylor, this course will explore contemporary problems of political violence, sex, money, and race. The first weeks of the course will explore three models for politics: the politics of liberties (that defines politics as protection from government intrusion), the politics of discipline (that defines politics as relations of power and asymmetry), and the politics of recognition (that defines politics as a site of dignity and respect). Readings and in-class discussion will then consider how these theories differently help us to understand: the political violence of torture; gender, sexuality, and domestic violence; crime, punishment, and modern prisons; and finally, race relations in America. Class discussions will move consistently between political theories and current political events. Further readings will include works by Hannah Arendt, WEB Du Bois, Judith Butler, Antonio Negri and others.  
Style: 60% Lecture, 40% Discussion.  
Grading: 55% reports/papers, 35% reflection paper, 10% class participation.

POL 4315W State Governments: Laboratories of Democracy  
4 credit(s); prereq 1001 or equiv, non-polisci grad major or instr consent; Credit will not be granted if credit has been received for: POL 5315; Meets CLE req of Writing Intensive;  
Instructor: Soper,Paul W  
Description: While we often think of the federal government as the leader in American politics, state governments often produce most of the policymaking innovation in the U.S., and they are also responsible for most of the implementation of federal and state policies. So, studying state government and politics provides an excellent way of learning how government really works in the U.S. In this course, we will investigate the following questions: How do states differ in their political systems, governments, and public policies? Do different states have different political cultures? How do these political cultures affect politics in different states? How is Minnesota politics typical, and how is it unique, compared with other states? How does state politics and government intersect with national politics and government? This course is writing intensive, so we will spend considerable time in class discussing writing, and performing exercises to improve your writing skills. Your grade will be based not only on your comprehension of state government and politics, but on the quality of your writing.  
Style: 40% Lecture, 40% Discussion. writing exercises  
Grading: 20% mid exam, 30% final exam, 50% reports/papers.  
Exam Format: essay

POL 4322 Rethinking the Welfare State  
3-4 credit(s), max credits 4; 1 completion allowed;  
Instructor: Gingrich,Jane Rebecca  
Description: Why have numerous attempts to introduce universal health insurance in the United States failed? Why does the United States provide public pensions (social security) to all elderly citizens, but lack universal programs for children and young people? Why does the US welfare state look so different from the Swedish, German and Japanese welfare states? Social programs like health care, pensions, unemployment benefits, welfare, and education are at the center of many contemporary political debates. In the past ten years alone, proposals to introduce private accounts in Social Security, extend the new prescription drug benefits for Medicare recipients, expand health coverage, reform welfare, and introduce more testing and federal regulations in education have been at the center of American political debate. This course examines these contemporary issues in a comparative perspective, asking why the American welfare state looks different from many European and Asian countries, what characterizes in the politics of social policy development in the US and abroad, and how can we understand today’s debates about policy reform. In so doing, we will look at the history and development of social policy in the US, Sweden, Germany and Japan, among other countries, comparing both across countries and different types of policies. The course is divided into three parts. The first section will introduce you to the basic structure of the American welfare state and different explanations for its character and development. In the second section, we turn to Europe and Asia, focusing in particular how various countries have organized their systems differently, and what explains these differences. In the third section of the course, we examine contemporary debates in social policy across countries? looking at both how US politicians and their foreign counterparts have responded to new social needs, taxpayer revolts, and new political debates.  
Style: 80% Lecture, 20% Discussion.  
Grading: 20% mid exam, 30% final exam, 40% reports/papers, 10% class participation.

POL 4410 Topics in Comparative Politics: Justice in Times of Global Transition  
3 credit(s), max credits 6;  
Instructor: Payne,Leigh A  
Description: This course introduces students to justice efforts after transitions from authoritarian rule or internal and armed conflict. In addition to examining different types of transitions, we will study transitional justice and post-conflict justice. These include trials, truth commissions, reparations, lustration and vetting, institutional reform, museums and memorials, testimonial accounts, and art. The course involves an interdisciplinary and case study approach. The key debates, concepts and theories explored include international relations and comparative politics, legal studies, sociology, social psychology, performance studies, and literary criticism. The course will focus on emblematic case studies of justice efforts, specifically: international trials in Germany, Cambodia, and Yugoslavia; domestic trials in Argentina and Peru; the South African Truth and Reconciliation Commission; lustration in Eastern Europe and de-Baathification in Iraq; and reparations for slavery and Japanese internment in the United States. Students will develop expertise on a country of their choice. In addition to in-class exams on key concepts, students will students will apply the concepts, theories and debates learned in two research papers on the same case study. The goals of the course extend beyond knowledge about transitions and justice. The course is also designed to develop skills in independent critical and analytical thinking, writing and research, and argument.  
Grading: 25% mid exam, 35% reports/papers, 25% special projects, 15% class participation.

POL 4463 The Cuban Revolution Through the Words of Cuban Revolutionaries  
3 credit(s); prereq 1025 or 1054 or equiv or instr consent; Meets CLE req of Global Perspectives;  
Instructor: Nimtz Jr,August H  
Description: The history of socialist revolutions over the course of a century or more reveals that what occurred in Cuba has proven to have more lasting power. In spite of all the challenges it continues to face, what explains why the Cuban Revolution is still in place after four decades? This is the central research question of the course. A definitive answer would require a thorough examination of the revolution from its initiation until today, which is beyond what can be done in a semester or its equivalent. The focus, rather, will be more limited. First, how was the revolution made and consolidated, from 1953 until about 1969. Second, how has it been able to survive and advance since the collapse of the Soviet Union, that is, since 1991? The emphasis here is on the role of leadership and strategy and how the Cubans and their leaders saw and see what they are doing, in their own words. This course will include primary source materials, their understandings, through documents, speeches and writings. For the first question I will also draw on the data from a research/film documentary project that I’ve involved in at this moment; the participation of women and men in the guerrilla army and underground movement.

POL 4465 Southeast Asian Politics 3 credit(s); Meets CLE req of Global Perspectives;
Instructor: Caraway, Teri L.

Description: Composed of eleven countries, Southeast Asia covers a wide geographical region stretching from India to China. With a rich endowment of natural resources, a dynamic manufacturing base, and a strategic location on China’s southern flank, the region has come to play an increasingly important role in the political and economic affairs of the globe. Culturally and ethnically diverse, hundreds of languages are spoken in the region, and the religions practiced include Buddhism, Catholicism, Hinduism, and Islam. All of the countries in Southeast Asia have exclusionary political systems, but they range from the formally democratic through civilian authoritarianism to military authoritarianism. Because the region is so diverse, the introduction must necessarily be incomplete. Readings and lectures will focus on seven countries: Burma, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. The course centers on three main themes: comparing the countries in the region with respect to political change and political systems, the Vietnam War, and counter-terrorism since 9/11. By the end of the course, students will have a better understanding of politics in the region and acquire theoretical tools for analyzing politics there.

Style: 30% Lecture, 20% Film/Video, 30% Discussion, 20% Small Group Activities.

Grading: 29% mid exam, 29% final exam, 29% reports/papers, 13% class participation. I use a point system, with 100 points each for the midterm, final, and research paper and 50 points for class participation.

POL 4473W Chinese Politics
3 credit(s); Credit will not be granted if credit has been received for: EAS 4473; Meets CLE req of Global Perspectives; Meets CLE req of Writing Intensive;
Instructor: Zhang, Zhenqing

Description: How did Chinese cultural and historical tradition inform contemporary Chinese politics? How has Chinese politics affected different aspects of Chinese society? Why did China reject planned economy model and adopt reform and opening policy in recent decades? Is China a responsible stakeholder? or a potential destabilizer? in world affairs? This course aims to answer those and probably more imperative Chinese related questions by focusing on the basic issues of development and governance in China. Specifically, we will examine the impact of domestic factors, such as culture, history, market reform, and inter-ethnic relationship, on China’s economic, social, and political development. We will also examine the impact of outside factors, such as international finance and foreign trade, on China’s development and governance. Although this class is designed for advanced undergraduate students in their junior or senior years, there is no prerequisite for taking this course. Additional knowledge of Chinese history and politics is preferred, but not required.

Style: 60% Lecture, 10% Film/Video, 15% Discussion, 15% Small Group Activities.

Grading: 20% mid exam, 20% final exam, 30% reports/papers, 20% additional semester exams, 10% class participation. (3 exams total at 20% each exam)

POL 4489W Citizens, Consumers, and Corporations
3 credit(s); Meets CLE req of Civic Life and Ethics; Meets CLE req of Writing Intensive;
Instructor: Caraway, Teri L.

Description: Corporations are among the most powerful actors in the global political economy. They employ millions of people, produce a variety of goods, and have massive effects on the ecological and social environments in which they do business. How do ordinary people act in order to hold corporations accountable for the effects that their activities have on communities and individuals? This course focuses on two ways that people have mobilized to counter corporate power—as citizens and as consumers. When people mobilize as citizens, they put pressure on corporations through the political system—e.g. through mass protests, lobbying politicians, and pursuing claims through the courts. When people mobilize as consumers, they use the power of their purchasing decisions to encourage corporations to change their behavior. We will explore these different modes of action through an examination of Wal-mart, branding and corporate social responsibility, labor rights, the environment, fair trade, water privatization, the privatization of life, and outsourcing war.

Style: 40% Lecture, 15% Film/Video, 30% Discussion, 15% Small Group Activities.

Grading: 20% final exam, 60% reports/papers, 20% class participation. Students will write two short essays of 4-5 pages and one research paper, 6-8 pages in length.

Exam Format: The exam will be an essay exam in which students will answer one question from a list of two or three questions.

POL 4501W The Supreme Court and Constitutional Interpretation
3 credit(s); Credit will not be granted if credit has been received for: POL 5487; Meets CLE req of Civic Life and Ethics; Meets CLE req of Writing Intensive;
Instructor: Johnson, Timothy Russell

Description: This course is designed to introduce students to constitutional law, with an emphasis on the U.S. Supreme Court's interpretation of Articles I, II, and III.

Style: 50% Lecture, 50% Discussion.

Grading: 43% mid exam, 33% final exam, 33% reports/papers.

POL 4771 Racial Attitudes and Intergroup Conflict
3 credit(s);
Instructor: STAFF

Description: This course will focus on critical comparative perspectives on race and ethnicity. Because race and ethnicity function differently in various parts of the world, it is instructive to consider questions of recognition, inclusion, equality and democracy through the comparative method. The first part of the course considers the similarities and differences between racial and ethnic identities. Historical patterns of inequality, economic relations and political institutions all interact and structure the way in which racial and ethnic diversity is managed and manipulated in different contexts. Key cases will highlight the way in which race and ethnicity serve as systems of stratification, as well as the various models of inter-group conflict resolution which have been tried throughout the world (cases will include US, Brazil, South Africa, Ethiopia, China, Australia, Iraq, France). Through case studies, films and popular news media, students will be asked to think globally and comparatively about inequality based on race and ethnicity. Finally, institutional and local solutions, in both national and international policy, will be considered.

Style: 80% Lecture, 20% Discussion.

Grading: 30% mid exam, 35% final exam, 35% reports/papers, 10% class participation.

Exam Format: Short answers and essays.

POL 4878W Israeli-Palestinian Situation
4 credit(s); Meets CLE req of Global Perspectives; Meets CLE req of Writing Intensive;
Instructor: Sampson III, Martin Wright

Description: Examines the issue in its familiar Israelis vs Palestinians mode, looking at each side's basic narrative and the historical and political factors surrounding those narratives. The course also draws on recent literature from both communities that challenges the basic narrative of the writer's own community. Some attention is paid to political-psychological ideas about conflict and reconciliation. Most of the assigned reading is by Israelis or Palestinians. The six books assigned in Spring '10 cost approximately $115 from Amazon.com. The Fall '10 readings may differ based on student evaluation of the spring readings and newly available books and articles. Writing activities early in the course support (a) student thinking about the subject and (b) student development of the required paper. The course writing portfolio meets the Department of Political Science major project requirement.

Style: 60% Lecture, 20% Discussion, 20% Small Group Activities.

Grading: 20% mid exam, 30% final exam, 40% reports/papers, 10% other evaluation.

Exam Format: A study guide appears a week before the exam.
or the test date. The test and the exam include a choice of short questions and a large essay. The guide includes possible essay questions, of which one appears on the test and one or two on the final exam

POL 4887 Thinking Strategically in International Politics
A-F only, 3 credit(s);
Instructor: STAFF
Description: This course surveys current theories of international relations, and introduces students to elementary game theory. Major topics include the causes of war, the conditions for international cooperation, and the role of international institutions. By the end of the semester, students will be expected to: 1. Understand the relevant international relations literature; 2. Understand simple game-theoretic techniques; 3. Critically analyze theories of international politics; and 4. Understand the general scientific method of theory building and empirical testing. Possible textbooks: Kenneth N. Waltz. 1954. Man, the State, and War; Waltz, Kenneth N. Theory of International Politics; Bruce Bueno de Mesquita, 2000. Principles of International Politics.
Style: Lectures and discussions after each homework is graded.
Grading: 30% mid exam, 40% final exam, 10% class participation, 20% other evaluation. homework
Exam Format: Multiple choice, essay, and short answer are all possible.

POL 4900W Senior Paper
A-F only, 1 credit(s); prereq Pol sr, instr consent; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Can be attached to any 3XXX or 4XXX course (with the instructor's agreement). A 10-15 page paper is submitted for evaluation/advice by instructor, then revised for final submission.
Grading: 100% reports/papers.
Exam Format: None

POL 5315 State Governments: Laboratories of Democracy
4 credit(s); prereq grad student or instr consent; Credit will not be granted if credit has been received for: POL 4315W;
Instructor: Soper, Paul W
Description: Student may contact the instructor or department for information.

POL 5410 Topics in Comparative Politics: Justice in Times of Global Transition
3 credit(s); prereq grad student;
Instructor: Payne, Leigh A
Description: This course introduces students to justice efforts after transitions from authoritarian rule or internal and armed conflict. In addition to examining different types of transitions, we will study transitional justice and post-conflict justice. These include trials, truth commissions, amnesty, reparations, lustration and vetting, institutional reform, museums and memorials, testimonials and art. The course involves an interdisciplinary and case study approach. The key debates, concepts and theories explored include international relations and comparative politics, legal studies, sociology, social psychology, performance studies, and literary criticism. The course will focus on emblematic case studies of justice efforts, specifically: international trials in Germany, Cambodia, and Yugoslavia; domestic trials in Argentina and Peru; the South African Truth and Reconciliation Commission; lustration in Eastern Europe and de-Baathification in Iraq; and reparations for slavery and Japanese interment in the United States. Students will develop expertise on a country of their choice. In addition to in-class exams on key concepts, students will develop assignments, assignments, and two research papers on the same case study. The goals of the course extend beyond knowledge about transitions and justice. The course is also designed to develop skills in independent critical and analytical thinking, writing and research, and argument.
Grading: 25% mid exam, 35% reports/papers, 25% special projects, 15% class participation.

POL 5465 Southeast Asian Politics
3 credit(s);
Instructor: Caraway, Teri L.
Description: Composed of eleven countries, Southeast Asia covers a wide geographical region stretching from India to China. With a rich endowment of natural resources, a dynamic manufacturing base, and a strategic location on China's southern flank, the region has come to play an increasingly important role in the political and economic affairs of the globe. Culturally and ethnically diverse, hundreds of languages are spoken in the region, and the religions practiced include Buddhism, Catholicism, Hinduism, and Islam. All of the countries in Southeast Asia have exclusionary political systems, but they range from the formally democratic through civilian authoritarianism to military authoritarianism. Because the region is so diverse, the introduction must necessarily be incomplete. Readings and lectures will focus on seven countries: Burma, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. The course centers on three main themes: comparing the countries in the region with respect to political change and political systems, the Vietnam War, and counter-terrorism since 9/11. By the end of the course, students will have a better understanding of politics in the region and acquire theoretical tools for analyzing politics there.
Style: 30% Lecture, 20% Film/Video, 30% Discussion, 20% Small Group Activities.
Grading: 29% mid exam, 29% final exam, 29% reports/papers, 13% class participation. I use a point system, with 100 points each for the midterm, final, and research paper and 50 points for class participation.

POL 8101 Introduction to Political Science
A-F only, 3 credit(s), max credits 4, 1 completion allowed;
prereq Grad pol sci major or instr consent;
Instructor: Samuels, David Julian
Description: Student may contact the instructor or department for information.

POL 8126 Qualitative Methods
3 credit(s); prereq Grad pol sci major or instr consent;
Instructor: Kelliher, Daniel R
Description: Student may contact the instructor or department for information.

POL 8160 Topics in Models and Methods: Multilevel Modeling
1-3 credit(s), max credits 12, 4 completions allowed;
prereq Grad pol sci major or instr consent;
Instructor: Freeman, John Roy
Description: Student may contact the instructor or department for information.

POL 8160 Topics in Models and Methods: Probability and Stats
1-3 credit(s), max credits 12, 4 completions allowed;
prereq Grad pol sci major or instr consent;
Instructor: Goren, Paul Nurullah
Description: Student may contact the instructor or department for information.

POL 8160 Topics in Models and Methods: Maximum Likelihood Estimation
1-3 credit(s), max credits 12, 4 completions allowed;
prereq Grad pol sci major or instr consent;
Instructor: Treier, Shawn A
Description: Student may contact the instructor or department for information.

POL 8260 Topics in Political Theory: Modernity and Maturity
3 credit(s), max credits 6;
prereq Grad pol sci major or instr consent;
Instructor: Luxon, Nancy
Description: Student may contact the instructor or department for information.

POL 8260 Topics in Political Theory: The Dialectical Legacy
3 credit(s), max credits 6;
prereq Grad pol sci major or instr consent;
POL 8660 Topics in Comparative Politics: Democracy & Democratization
3 credit(s), max credits 9, 3 completions allowed; prereq Grad pol sci major or instr consent
Instructor: Ansell, Benjamin William
Description: The seminar will be organized around the following main themes: 1) Philosophical traditions, emergence of key concepts 2) Typologies of regimes - empirical referents 3) The rise of the state and sources of democratic and authoritarian rule 4) Processes of regime decay and/or collapse
Style: 25% Lecture, 60% Discussion, 15% Student Presentation.
Grading: 50% reports/papers, 25% reflection paper, 25% class participation.

PORT 1101 Beginning Portuguese
5 credit(s);
Instructor: STAFF
Description: Introduction to Portuguese: speaking and understanding, pronunciation, reading and writing, basic grammar, cultural aspects of the language and Portuguese-speaking countries (Portugal, Brazil, Mozambique, Angola, Cape Verde, Guinea Bissau, and Sao Tome and Principe).

PORT 1103 Intermediate Portuguese
5 credit(s); prereq 1102 or instr consent
Instructor: STAFF
Description: Intermediate Portuguese: Speaking and comprehension, development of reading and writing skills based on Portuguese-language materials, cultural and linguistic aspects of Portuguese-speaking countries (Portugal, Brazil, Mozambique, Angola, Cape Verde, Guinea Bissau, and Sao Tome and Principe).

PORT 3001 Portuguese for Spanish Speakers
4 credit(s); prereq [SPAN 3015, [LPE or PORT LPE]] or [speaker of other Romance language, instr consent]
Instructor: STAFF
Description: Study of Portuguese based on student knowledge of Spanish (speakers of other Romance languages are allowed with instructor permission). Contrastive approach to the phonic and morpho-syntactic structures of Portuguese. Cultural components will focus on Brazil, Portuguese-speaking Africa.
Style: 20% Lecture, 60% Discussion, in-class writing.
Grading: 15% mid exam, 20% final exam, 20% reports/papers, 10% quizzes, 15% in-class presentation, 20% class participation.

PORT 3003 Portuguese Conversation and Composition
4 credit(s); prereq 1104, 3001, Port LPE
Instructor: STAFF
Description: This course will focus on grammar review through practical activities in order to encourage conversation. There will also be readings, films/videos, and discussions that will center on Brazilian and/or Portuguese, and/or Lusophone African cultures. The main objective is for students to improve all four language skills (comprehension, reading, speaking, and writing).

PORT 3502W Foundations of Brazilian Literature and Culture
3 credit(s); prereq 3003 or equiv; Credit will not be granted if credit has been received for: PORT 3502V
Meets CLE req of
PORT 4101 Beginning Portuguese
2 credit(s); prereq Grad student; 
Instructor: Cordeiro,Celia Carmen
Description: Student may contact the instructor or department for information.

PORT 4103 Intermediate Portuguese
2 credit(s); prereq Grad student; 
Instructor: Bartolomei,Fernanda Horta
Description: Student may contact the instructor or department for information.

PORT 5520 Portuguese Literary and Cultural Studies
3 credit(s), max credits 9, 3 completions allowed; 
Instructor: Ferreira,Ana Paula
Description: This is a graduate-level introductory course to the literature and culture of Portugal, from the period of overseas expansion to that of empire and nation, that is, postcolonialism and European integration. Through key literary texts and occasionally examples from architecture, sculpture, painting, film and music, we will peruse the fundamental problematic of a national culture poised on the elsewhere and on the myriad others that constitute it, both within and outside of metropolitan borders. Additional readings in critical, historical, philosophy, history, sociology and anthropology are required. Particular attention will be given to the gender, sexual, racial and class narratives that order the inscription of empire from the mid-1850 to the end of the twentieth century. Classes will be conducted in Portuguese, but students who prefer to read the texts in an existing translation may do so. Students whose major is in Portuguese are expected to use the target language; non-majors may use English or Spanish. Students will be required to present brief critical overviews of secondary texts, to be distributed to others in the class. Other requirements include: an annotated bibliography, to be handed in by week 10; a conference paper proposal, to be handed in by week 11; and a research paper of 15 to 20 pages due by week 14. The length and the critical depth of all required work will be adjusted for undergraduate students taking the course. A number of books have been ordered through the bookstore, but I urge students to secure them earlier than Fall to be able to read them before the semester begins. I am available over the summer for questions and ideas for research projects related to the course (apferrei@umn.edu).

POST 1090 Directed Research
1-4 credit(s), max credits 9, 9 completions allowed; prereq instr consent, dept consent; college consent; 
Instructor: Aparicio,Henriquesteio
Description: Thematic areas not covered in other Lusophone Studies (Portuguese-speaking Africa, Brazil and Portugal) Thematic areas not covered in other courses. Students submit reading plans for particular topics, figures, periods or issues.

PORT 722 Introductory Algebra (Computer)
0 credit(s); prereq [4 cr equiv]. General Math Placement Test credit will not be granted if credit received for: 0616, 0617, 0621, 0712, 0713, 0716, 0717, 0721, 1435;
Instructor: Robertson, Douglas Frederick
Description: A first course in algebra taught using computer-mediated instruction. You learn new material using interactive multimedia computer software. There are no lectures. You will be on the computer 70% of each class period. The rest of the time you will be working on algebra problems, taking exams, and working individually with the instructor. This course is not self-paced: you must follow a set schedule for checkpoints, homework, and exams. Course covers concepts and procedures of elementary algebra at a level of difficulty and abstraction geared for students enrolled at a research university. To be successful you must enter the course being able to work with whole numbers, fractions, decimals, and percents. Course content includes real number (signed number) operations, equations, inequalities, absolute value, rectangular (x-y) graphs, systems, exponents, polynomials, factoring, rational expressions and equations, and word problems. Hourly time commitment per week: Class: 4; Reading: 1; Writing: 0; Studying: 2; Homework: 6. Homework assignments ask you to work 10-40 problems each class day. Testing includes daily checkpoints (one question mini-quizzes), four 50 minute closed-book exams and a two hour comprehensive final. Course prepares you for Intermediate Algebra, PsTL 0732.
Style: 30% Discussion, 70% Web Based. Computer-mediated instruction, working on problems, interacting with instructor 
Grading: 60% mid exam, 20% final exam, 10% quizzes, 10%
PSTL 732 Intermediate Algebra (Computer)

0 credit(s); prerequisite: 4 cr equiv or grade of at least C in [0713 or 0717 or 0721 or 0722] or General Math Placement Test

credit will not be granted if credit received for: 0618, 0625, 0631, 0731, 1443, 1444, 1445, 1446; Credit will not be granted if credit has been received for: PSTL 731;

Instructor: Robertson, Douglas Frederick

Description: A second course in algebra taught using computer-mediated instruction. You learn new material using interactive multimedia computer software. There are no lectures. You will be on the computer 70% of each class period. The rest of the time you will be working on algebra problems, taking exams, and working individually with the instructor. This course is not self-paced; you must follow a set schedule for checkpoints, homework, and exams. Course covers concepts and procedures of intermediate algebra at a level of difficulty and abstraction geared for students enrolled at a research university. To be successful you must enter the course being able to work with expressions, equations, exponents, polynomials, factoring, rational expressions and equations, and graphs. Course content includes roots, radicals, linear, quadratic, exponential, and logarithmic functions, and word problems. Hourly time commitment per week: Class: 4, Reading: 1, Writing: 0, Studying: 2, Homework: 6. Homework assignments ask you to work 10-40 problems each class day. Testing includes daily mini-quizzes, four 50 minute closed-book exams and a two hour comprehensive final. Calculators are allowed. Course prepares you for Math 1031 College Algebra or Math 1051 Precalculus I, as well as PSTL 1004 Statistics and PSTL 1006 Mathematical Modeling and Prediction (both of which satisfy the CLE Mathematical Thinking requirement).

Style: 30% Discussion, 70% Web Based. Computer-mediated instruction, work individually, work one-on-one with instructor.

Grading: 60% mid exam, 20% final exam, 10% quizzes, 10% written homework.

Exam Format: Exams are problem oriented (e.g., Solve this equation).

PSTL 1004 Statistics

4 credit(s); prerequisite: Intermediate algebra or equivalent placement exam credit will not be granted if credit received for: GC 1454 or Stat 1001; Meets CLE req of Mathematical Thinking;

Instructor: Loch, Suzanne Yvette

Description: This course is an introduction to statistics that emphasizes problem solving and decision making through the collection, analysis, and interpretation of data. Course topics include the organization and presentation of data, summary statistics, sampling methodology, sampling distributions, probability, estimation, correlation, hypothesis testing, contingency tables, and chi-square analysis. The instructional approach includes the use of small active learning groups, computer statistics software, computer simulations, in-depth projects, writing assignments, demonstrations, and lots of discussion and problem solving based on practical examples. Students learn how to analyze and interpret quantitative information, to use statistical thinking, and to communicate using the language of statistics. Students will develop a level of statistical literacy that enables them to critically assess information encountered in the media and other sources. This course will be of particular interest to undergraduate non-majors who want to fulfill the CLE requirement in Mathematical Thinking.

Style: 40% Lecture, 9% Discussion, 50% Small Group Activities, 1% Student Presentation.

Grading: 25% reports/papers, 55% additional semester exams, 20% problem solving. The 20% of the course grade for problem solving involves course work done in the classroom - most assignments will be found in the course packet.

Exam Format: Exams are a combination of short answer questions, calculations and graphing, and multiple choice questions.

PSTL 1004 Statistics

4 credit(s); prerequisite: Intermediate algebra or equivalent placement exam credit will not be granted if credit received for: GC 1454 or Stat 1001; Meets CLE req of Mathematical Thinking;

Instructor: Duranczyk, Irene M

Description: We will explore statistics in four ways: 1) exploring the use of statistics and statistical techniques including the organization and presentation of data, summary statistics, sampling, sampling distributions, probability, estimation, correlation, hypothesis testing, contingency tables, and chi-square analysis; 2) analyzing statistical reasoning associated with democracy and citizenship in the United States; 3) demonstrating the use of statistics when considering how race, class, gender, disability, religion, immigration, and sexual orientation in the U.S. can "position" people for democratic citizenship or disenagement; and 4) communicating and problem solving in words and mathematical presentations statistical principles, concepts, and their application through the collection, analysis, and interpretation of data. This class will primarily use small group discussion and activities to explore and practice the principles of statistics. Statistical software will be used weekly for in-class and out-of-class activities. There will be weekly reading, writing, and mathematical assignments to prepare for class discussions and activities. In class activities will culminate in an in-depth small group project. As appropriate course material and supplemental materials will be posted in Web Vista. Upon successful completion of this course you should have improved skills in critical thinking and in constructing, analyzing, and interpreting statistical presentations of data and phenomena. Students will develop a level of statistical literacy that enables them to critically assess information encountered in the media and other sources. This course will be of particular interest to undergraduates who want to fulfill the CLE requirement in Mathematical Thinking.

Style: 25% Lecture, 20% Discussion, 45% Small Group Activities, 10% Student Presentation.

Grading: 30% mid exam, 20% reports/papers, 10% quizzes, 10% written homework, 10% journal, 10% reflection paper, 10% in-class presentation of knowledge and problem solving are a part of the assignments, exams, papers, and presentations.
Exam Format: Exams are a combination of short answer questions, problem solving, calculations, graphing and may include some multiple choice.

PSTL 1006 Mathematical Modeling and Prediction
3 credit(s); prerequisite Three yrs high school math or grade of at least C+ in [0731 or 0732] or placement test score or instr consent; Meets CLE req of Mathematical Thinking;
Instructor: Robertson, Douglas Frederick
Description: Student may contact the instructor or department for information.

PSTL 1006 Mathematical Modeling and Prediction
3 credit(s); prerequisite Three yrs high school math or grade of at least C+ in [0731 or 0732] or placement test score or instr consent; Meets CLE req of Mathematical Thinking;
Instructor: Sottleneryer, Ph.D., Janet
Description: This course is part of a learning community with geology and as such will focus part of the time on specific geological data and the graphs and mathematical models associated with that subject. It is a mathematical thinking course that primarily uses mathematical models to describe real world data and demonstrate the uses of mathematical manipulations. Data are described by a mathematical model and a graphical rendering. These models are then used to make predictions. Applications of linear, polynomial, exponential and logarithmic functions will be explored. Probability will also be introduced. Students will develop algebraic and critical thinking skills while observing and analyzing the behavior of real-world data. The foundations of counting and probability will be integrated into the modeling activities. When students have successfully completed this class, they will be able to develop, select, and fine-tune equations and use probabilities to represent a wide variety of situations using real-world applications and applying a model to the data with mathematics, both equations and graphs. There will be lecture, demonstrations, individual in-class work, and small group work in the class.
Style: 80% Lecture, 10% Laboratory, 10% Demonstration.
Grading: 20% final exam, 40% special projects, 10% written homework, 30% additional semester exams.

PSTL 1051 Editing for Writers
2 credit(s);
Instructor: Rojas Collins, Molly C
Description: 1051 is an editing class for non-native speakers of English in which students are guided in how to analyze their writing in order to understand their own patterns of error. Explicitly focused on language.

PSTL 1051 Editing for Writers
2 credit(s);
Instructor: Fitzpatrick, Renata
Description: 1051 is an editing class for non-native speakers of English in which students are guided in how to analyze their writing in order to understand their own patterns of error. Explicitly focused on language and academic English. Short lectures on features of English, small group/peer activities, individual conferencing on editing needs.

PSTL 1086 The First-Year Experience
A-F only, 2 credit(s);
Instructor: Higbee, Jeanne Louise
Description: PSTL 1086 is a 2-credit-hour course that serves as an introduction to higher education and as an ongoing orientation to the University of Minnesota. The course is designed to assist students in making the transition to college life and to enhance self-awareness. The course provides opportunities to examine the challenges associated with the first-year of college in an atmosphere that is inclusive for all learners. The purpose of this course is to increase the likelihood that students' first and future years at the University of Minnesota will be successful. Specifically, participation in this section of 1086 will help student-athletes connect with many of the resources that are necessary for success both in the classroom and in their sport while also assisting students in exploring issues associated with being a student-athlete at a Big 10 institution.

PSTL 1131 Principles of Biological Science
4 credit(s); Meets CLE req of Biological Sciences;
Instructor: Jensen, Murray Stowe
Description: Student may contact the instructor or department for information.

PSTL 1163 Physics by Inquiry
4 credit(s); prerequisite will not be granted if credit received for: GC 1163; Meets CLE req of Physical Sciences;
Instructor: Hsu, Leon
Description: This is a lecture-lab course that will focus on physical science content and the nature of science and learning. By the end of the semester, students should have developed a deeper understanding of both physical science content and the nature of science and of learning science. Physical science content students will explore physics and chemistry ideas that can be used to explain interesting phenomena, including: the relationship between force and motion; the nature of energy, energy transformations, and conservation of energy; and the small particle theory of matter. The nature of science and of learning science students will learn the process by which knowledge is developed within a scientific community: that doing science involves using evidence and creative thinking; that knowledge is established through collaboration and consensus; and that science knowledge can change over time. You will also learn about the differences between models, theories and laws. Finally, you will also become more aware of how your own science ideas change and develop over time.
Style: 50% Lecture, 10% Discussion, 40% Laboratory.
Grading: 20% final exam, 30% quizzes, 15% written homework, 5% class participation, 30% laboratory evaluation.
Exam Format: Mostly multiple choice, with some free-response questions.

PSTL 1171 Earth Systems and Environments
4 credit(s); prerequisite will not be granted if credit received for: GC 1171; Meets CLE req of Environment;
Instructor: Fayon, Anna
Description: Students will learn about geologic processes through an earth systems approach that focuses on the interaction between natural cycles and society. Topics will include formation of continents and mountains, geologic time, interaction between natural cycles and society. Topics will include formation of continents and mountains, geologic time, climate changes, and natural resources. Lecture and laboratory format.

PSTL 1204 Ways of Knowing in the Social Sciences
A-F only, 4 credit(s); Meets CLE req of Social Sciences;
Instructor: Ronkvist, Amy Michelle
Description: Student may contact the instructor or department for information.

PSTL 1211 Multicultural Perspectives in Sociology
4 credit(s); prerequisite will not be granted if credit received for: GC 1211; Meets CLE req of Diversity and Soc Justice US; meets CLE req of Social Sciences;
Instructor: Kelly, Margaret Ellen Delehanty
Description: This course is an introduction to sociological thinking and methods of research. We will explore areas of
human interaction that include socialization, culture, stratification and inequality (on the basis of race, class, and gender) social control, and social change. During the semester we will explore these and other topics in an overview of major ideas associated with classical and modern social thought. The purpose of this course is to provide you with the basic tools to better understand (and question) our ideas, and our social world. Through the readings, we will contest everyday understandings of social issues to understand the ways in which different aspects of social life systematically differentiate by privileging and disadvantaging our participation in society. Service Learning will be required in this course.

**Style:** 30% Lecture, 30% Discussion, 30% Small Group Activities, 5% Student Presentation, 5% Service Learning.

**Grading:**
- 20% mid exam, 20% final exam, 20% reports/papers, 15% special projects, 5% written homework, 5% attendance, 5% in-class presentation, 10% class participation.

**Exam Format:** multiple-choice

**PSTL 1231 U.S. History: Multicultural Perspectives**

4 credit(s); prereq credit will not be granted if credit already received for: GC 1231, GC 1231W; Meets CLE req of Diversity and Soc Justice US; meets CLE req of Historical Perspectives.

**Instructor:** Stahl, Jason Michael

**Description:** Student may contact the instructor or department for information.

**PSTL 1246 Multicultural Contexts: Engaging Citizenship and Democracy**

3 credit(s); Meets CLE req of Civic Life and Ethics; meets CLE req of Social Sciences.

**Instructor:** Peter, Gary E

**Description:** The Greeks defined the term ?citizen? as a person who was knowledgeable and engaged in society and politics. The central question we will explore in this course is how to be an engaged citizen in a multicultural democracy. Using multiple lenses of history, law, psychology and sociology, this course, examines the role of individuals and groups in shaping the nature of citizenship and public ethics in U.S. society. Using social science texts, historical narratives, literature, and legal cases, the course explores the nature of legal and personal responsibility with particular attention to race, class, gender and civil rights. In addition, to learn how the adversarial system works (or doesn?t work!) all students will participate in a full mock jury trial.

**Style:** 25% Lecture, 5% Film/Video, 25% Discussion, 20% Small Group Activities, 20% Student Presentation, 5% Guest Speakers.

**Grading:**
- 45% reports/papers, 5% quizzes, 10% written homework, 25% in-class presentation, 15% class participation.

**PSTL 1246 Multicultural Contexts: Engaging Citizenship and Democracy**

3 credit(s); Meets CLE req of Civic Life and Ethics; meets CLE req of Social Sciences.

**Instructor:** Poch, Robert Karl

**Description:** The primary goal of this course is to proactively engage students in exploring the nature of citizenship in the United States, how it has changed through time, and practical ways in which we can become engaged citizens today in a multicultural society. We examine the role of individuals and groups in shaping and defining the nature of citizenship and public ethics in U.S. society and ask when and if all people in the U.S. have had equal opportunity for full citizenship. Further, we investigate and discuss what social, legal, and institutional practices impact the capacity of individuals and groups to engage in citizenship in a multicultural democracy.

**Grading:**
- 20% mid exam, 20% final exam, 10% reports/papers, 10% special projects, 10% quizzes, 20% additional semester exams, 5% reflection paper, 5% class participation. Study guides for major exams created by students in the class and also from textbooks.

**Exam Format:** Major exams have three parts: matching vocabulary, multiple-choice, and essay questions.

**PSTL 1251 Global History and Culture**

4 credit(s); prereq credit will not be granted if credit received for: GC 1251; Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives.

**Instructor:** Stahl, Jason Michael

**Description:** Student may contact the instructor or department for information.

**PSTL 1251 Global History and Culture**

4 credit(s); prereq credit will not be granted if credit received for: GC 1251; Meets CLE req of Global Perspectives; meets CLE req of Historical Perspectives.

**Instructor:** Arendale, David R

**Description:** This course fulfills two graduation requirements: CLE Diversified Core: Historical Perspectives CLE Designated Theme: International Perspectives Course Overview This course provides a comprehensive overview of world history during the past 100 years. The course develops major concepts such as nationalism, democracy, colonialism, liberalism, socialism, communism, and fascism while tracing their impact on Europe, Asia, Africa, and the Americas. Major topics explored include: What are the forces that guide history as it unfolds? How does today's news headlines connect with the past? Is it possible to predict the near future and make personal plans as a result? Exploring these questions helps to make sense out of history and connect "then and now." Current events such as ethnic conflicts, the breakup of the Soviet Union, the modernization of Japan, China, and India, Arab-Israeli disputes, nation building in Africa, neo-colonialism and trade dependence in developing countries make sense when the past is explored and connections made with the present. Technology: Another life skill that is developed through this course is the use of technology. Like many other courses at the University, WebVista is an important Internet tool that serves as a companion to the course. Utilizing the features of WebVista will allow accessing of critical course materials (study guides, lecture outlines, information links). An additional feature of this course is integrating the use of blogs, wikis, and podcasting into the course. As a class we will construct a weekly audio podcast that features a review of the history topics as well as include music selected by students. Check out the podcast at http://thenandnow.org It can be subscribed through iTunes. You can also sample the podcast by clicking on the web link on that web page. Also, the class will construct online its own study guide for the major exams. Check out the website at http://myworldhistory.net Final Words History is all around us. We observe it as well as help to create it. The only way to study history is to hold a history textbook in one hand and today's newspaper in the other. This class is about creating connections among the textbook and today's newspaper headlines. It is about making sense out of a world that sometimes seems not to make very much sense at all. I hope that you decide to join us in the class.

**Style:** 80% Lecture, 10% Film/Video, 15% Discussion, 10% Small Group Activities, 2% Field Trips, 3% Web Based.

**Grading:**
- 20% mid exam, 20% final exam, 10% reports/papers, 10% special projects, 10% quizzes, 20% additional semester exams, 5% reflection paper, 5% class participation. Study guides for major exams created by students in the class and also provided by the course instructor. Also the course instructor and the enrolled students coproduce a weekly podcast that reviews the textbook chapter and class lectures.

**Exam Format:** Major exams have three parts: matching vocabulary, multiple-choice, and essay questions.

**PSTL 1281 Principles of Psychology**

4 credit(s); prereq Have not received college credit for intro psych; Credit will not be granted if credit has been received for: PSY 1001; Meets CLE req of Social Sciences.

**Instructor:** Wambach, Catharine A

**Description:** PSTL 1281 is an introductory psychology course. It is equivalent to Psy 1001 and introductory psychology courses offered at other colleges and universities. You should not take this course if you have already received college credit for an introductory psychology. The course includes content required for future study in psychology, business, education and health...
sciences. The content of the course includes terminology, theories and the results of research from the major areas of research and practice including sensation, perception, cognition, motivation, emotion, learning, personality, abnormal behavior, therapeutic practices, health and social behavior.

**Style:** 50% Lecture, 25% Discussion. 25 quizzes

**Grading:** 15% final exam, 5% reports/papers, 50% quizzes, 10% written homework, 5% attendance, 15% other evaluation.

**Exam Format:** multiple choice

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**PSTL 1281 Principles of Psychology**

4 credit(s); prerequisite Have not received college credit for intro psych; Credit will not be granted if credit has been received for: PSY 1001; Meets CLE req of Social Sciences;

**Instructor:** Grier-Reed, Tabitha LaShau

**Description:** PSTL 1281 is an introductory psychology course. It is equivalent to Psy 1001 and introductory psychology courses offered at other colleges and universities. You should not take this course if you have already received college credit for introductory psychology. The course includes content required for future study in psychology, business, education and health sciences. The content of the course includes terminology, theories and the results of research from the major areas of research and practice including sensation, perception, cognition, motivation, emotion, learning, personality, abnormal behavior, therapeutic practices, health and social behavior.

**Style:** 20% Lecture, 20% Film/Video, 20% Discussion, 30% Small Group Activities, 10% Student Presentation. The nature of this class is primarily interactive, where the goal is to bring alive the concepts you encounter in the text in your outside reading.

**Grading:** 18% special projects, 52% additional semester exams, 5% attendance, 13% reflection paper, 7% in-class presentation, 5% class participation. Extra credit opportunities make up approximately 10% of the points available in the course (66/620).

**Exam Format:** All exams are multiple choice. There are 4 semester exams made up of 40 questions each. Each exam covers 4 chapters from the text.

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**PSTL 1286 Literatures of the U.S.: Multicultural Perspectives**

3 credit(s); Meets CLE req of Literature;

**Instructor:** Fitzpatrick, Renata

**Description:** This is an introductory course in literatures of the U.S. from 1865 to the present. We will read, write about, and discuss a range of short fiction and poetry from this period. While by no means an exhaustive survey of this huge body of work, our sampling will include a variety of literary styles, as well as multiple perspectives on the human experience in general, and identity in America in particular. We will focus on how the literature reveals the challenges faced by diverse groups and individuals of the United States, and reflect on the formation of their identities in various social worlds. The class will also introduce some of the formal elements of literature such as tone, symbolism, voice, and so on. We will practice literary analysis and interpretation, in writing and in conversations with other readers. Our class will include brief lectures, small group work, large group discussion, 10 reading checks, 2 exams, and a final paper. 30-50 pages of reading per week.

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**PSTL 1312 Creating Identities Through Art and Performance**

4 credit(s); Meets CLE req of Arts/Humanities;

**Instructor:** Buturian, Linda J

**Description:** "Creating Identities through Art and Performance" is an introductory course that both analyzes and creates art in order to experiment with different genres of art reveal social and cultural themes that shape identity. Students will be reading and reflecting on short stories, digital stories, plays, poetry, film, music, and photography. Students will also create multimedia projects which reflect their identity through some combination of text and images.

**Style:** 40% Lecture, 10% Film/Video, 10% Discussion, 5% Small Group Activities, 5% Student Presentation, 10% Demonstration, 10% Studio, 5% Guest Speakers, 5% Web Based.

**Grading:** 20% reports/papers, 20% special projects, 10% written homework, 10% attendance, 10% reflection paper, 20% in-class presentation, 10% class participation.
PSTL 1371 Reading Short Stories
3 credit(s); Meets CLE req of Literature;
Instructor: Rojas Collins, Molly C
Description: Style: 100% Web Based.
Grading: 33% final exam, 33% quizzes, 33% written homework.
Course Completion Calendar (1%)
Exam Format: Take-home final exam

PSTL 1461 Multicultural Perspectives in Public Speaking
3 credit(s); prerequisite: credit will not be granted if credit received for: COMM 1101, COMM 1101H, GC 1461;
Instructor: Trites, Jill K
Description: Students develop fundamental skills, knowledge, and abilities to confidently communicate their thoughts and ideas to others in a public forum. Students prepare and present a series of informative and persuasive speeches on socially significant topics in multicultural contexts. Special focus on ethics, citizenship, voice, language. Every student will have at least ten opportunities to present during the semester, from one-minute informal presentations to seven-minute formal presentations. Three speeches will be digitally recorded, and we will utilize an on-line annotation tool called VideoANT for both self and peer critiques.
Style: 20% Lecture, 5% Film/Video, 20% Discussion, 15% Small Group Activities, 40% Student Presentation.
Grading: 20% quizzes, 15% written homework, 55% in-class presentation, 10% class participation.
Exam Format: Students have choice of taking the quizzes in two formats: (A) multiple-choice and true/false, or (B) essay.

PSTL 1461 Multicultural Perspectives in Public Speaking
3 credit(s); prerequisite: credit will not be granted if credit received for: COMM 1101, COMM 1101H, GC 1461;
Instructor: Dorsey, Heather Jane
Description: The purpose of this course is to introduce the student to the field of Speech Communication; to show basic theories of communication; illustrate the complicated process that is communication; and demonstrate that, through conscious choices, the student can significantly impact the effectiveness of communication. This course will aid the student in the development of communication skills and allows for assessment of personal strengths, weaknesses and barriers to communication. This, ultimately, will prepare the student to be a better communicator.

PSTL 1461 Multicultural Perspectives in Public Speaking
3 credit(s); prerequisite: credit will not be granted if credit received for: COMM 1101, COMM 1101H, GC 1461;
Instructor: Frederickson, Tina
Description: This course is designed to develop an understanding of the fundamental principles and processes of face-to-face human communication, with the multicultural component coming from each student as they present speeches of personal and social relevance. Primary focus is on public communication; providing practical public speaking experiences and opportunities to analyze this rhetorical art. Emphasis is placed on frequent in-class presentations, critical and creative thinking, group activities and discussions, and increasing the awareness of the ethical obligations we have as a speaker and listener. * Please note - Sections 7 & 8 will focus on Environmental/Sustainability Issues as a point of general conversation, research, and focus of two major speeches. No prior knowledge is required.
Style: 15% Lecture, 2% Film/Video, 18% Discussion, 20% Small Group Activities, 45% Student Presentation.
Grading: 9% mid exam, 11% final exam, 18% written homework, 7% attendance, 53% in-class presentation, 2% class participation.

PSTL 1485 Creativity: Photography
4 credit(s); prerequisite Own camera [35 mm w/adjustable controls preferred], UC; $50 lab fee; Credit will not be granted if credit has been received for: UC 1485;
Instructor: Millikan, Jeffrey B
Description: This introductory course explores conceptual, technical, and historical aspects of photography as an art form. Emphasis is on the creative process through hands-on experience as students learn about camera control, film development, enlarging, and printing in a photographic darkroom. Students receive instruction and support through individual and group discussion and critiques as they work to create a portfolio of their own images. Course includes required lab time in addition to scheduled class times. Students must have a film based camera, (35mm with adjustable controls preferred).
Style: 30% Lecture, 20% Discussion, 50% Laboratory.

PSTL 1525V First-Year Inquiry: Multidisciplinary Ways of Knowing
A-F only, 4 credit(s); prerequisite CEHD honors, 1st-term fr; Meets CLE req of Writing Intensive;
Instructor: Wambach, Cathrine A
Description: Student may contact the instructor or department for information.

PSTL 1525V First-Year Inquiry: Multidisciplinary Ways of Knowing
A-F only, 4 credit(s); prerequisite CEHD honors, 1st-term fr; Meets CLE req of Writing Intensive;
Instructor: Hodne, Barbara Downs
Description: Student may contact the instructor or department for information.

PSTL 1525V First-Year Inquiry: Multidisciplinary Ways of Knowing
A-F only, 4 credit(s); prerequisite CEHD honors, 1st-term fr; Meets CLE req of Writing Intensive;
Instructor: Jensen, Murray Stowe
Description: Student may contact the instructor or department for information.

PSTL 1525V First-Year Inquiry: Multidisciplinary Ways of Knowing
A-F only, 4 credit(s); prerequisite CEHD honors, 1st-term fr; Meets CLE req of Writing Intensive;
Instructor: Cory, Kristin Anne
Description: Student may contact the instructor or department for information.

PSTL 1525V First-Year Inquiry: Multidisciplinary Ways of Knowing
A-F only, 4 credit(s); prerequisite CEHD honors, 1st-term fr; Meets CLE req of Writing Intensive;
Instructor: Madyun, Naim Hossein
Description: Course Completion Calendar (1%) for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
work, our leisure activities, and our use of everyday manufactured objects. Failing resources and rising pollution, however, require societies to consider using energy in more sustainable ways. In a humanistic sense, energy defines our lives’ actions. High energy people attack life with unstoppable enthusiasm. Nontraditional healers use energy pathways in our bodies to improve well-being. People from distinct religious traditions report drawing strength and guidance from the energy of a higher spirit. Students in this class will study the concept of energy from a wide range of perspectives informed by the disciplines of physics, psychology, anthropology and mathematics. As we read Prisoner of Tehran, we will explore the theme of forgiveness as a type of social energy. Can individuals and political entities realistically establish social harmony through forgiveness? In their capstone project, students will be asked to use both scientific and humanistic interpretations as they answer the question, “How does attention to energy enable people to make a difference?”

PSTL 1525W First-Year Inquiry: Multidisciplinary Ways of Knowing
A-F only, 4 credit(s); Meets CLE req of Writing Intensive;
Instructor: Wambach, Cathrine A
Description: How can one person make a difference? Sometimes, if we leverage our resources! The concept of leverage originated in physics. Leverage also means using what you have to accomplish something more. In this course we will focus on how to do more with the resources we have by using tools such as levers and by organizing ourselves into groups. We will consider how groups reach tipping points when fads take off and paradigms shift. We will also consider when groups make good decisions and what causes group decision-making to derail.

PSTL 1525W First-Year Inquiry: Multidisciplinary Ways of Knowing
A-F only, 4 credit(s); Meets CLE req of Writing Intensive;
Instructor: Hodne, Barbara Downs
Description: JUSTICE ISN’T JUST US Reading "A Lesson Before Dying" will help us explore and express our own views of two institutional systems that clearly need people who can make a difference: the American educational system and the American justice system. But before we can stand up to make a difference in such large institutions, we must look inward to understand our beliefs and values about those institutions. For that inward look, we will discuss how education can help or hurt a person’s understanding of who they are, and also consider how our courts, laws, and prisons work or do not work. Then we will look outward: we'll read contemporary stories of people's experiences in the educational and justice systems; we will read analysis articles that attempt to explain those experiences, and we will read profiles of activists trying to change those systems. Finally, our capstone project will be a collaborative activity highlighting both inward beliefs and outward action by asking students to research and publicize the work of a local person or group attempting to make changes that students in our class believe in and want to support. Acting toward justice is never acting for ourselves alone.

Style: 25% Lecture, 4% Film/Video, 40% Discussion, 20% Small Group Activities, 10% Student Presentation, 1% Guest Speakers.
Grading: 65% reports/papers, 10% written homework, 20% class participation, 5% other evaluation. Advising component: attend six advising workshops and one individual meeting with advisor.

PSTL 1525W First-Year Inquiry: Multidisciplinary Ways of Knowing
A-F only, 4 credit(s); Meets CLE req of Writing Intensive;
Instructor: Jensen, Murray Stowe
Description: It's clear that food plays an integral part in our daily lives, but how much do you know about that burger you just ate? Will a healthy diet help you live longer? How does food bring people together? How is food production and safety regulated by the government? In this course, team taught by a biologist, a social scientist, and a lawyer, we'll examine food through a variety of perspectives - scientific, sociological/psychological, literary - to come to a better understanding of its impact on our world. Using food-related texts from a variety of disciplines as well as writing, discussion, oral presentations, and other mediums, we will consider the following question: How can you, either individually or working with others, make a difference by educating yourself and others about where food comes from and how to make informed choices about what you eat? We'll read and discuss Paul Rusesabagina's autobiography about the 1994 Rwandan genocide, An Ordinary Man, to explore how food and hospitality can make a life-saving difference in a difficult situation, as well as other food-related texts from a range of disciplines. At the end of the semester, students will collaborate in small groups to present a final capstone project on a food-related subject to the larger College of Education and Human Development academic community.

PSTL 1525W First-Year Inquiry: Multidisciplinary Ways of Knowing
A-F only, 4 credit(s); Meets CLE req of Writing Intensive;
Instructor: Wambach, Cathrine A
Description: How can one person make a difference.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
PSTL 1525W First-Year Inquiry: Multidisciplinary Ways of Knowing
A-F only, 4 credit(s); Meets CLE req of Writing Intensive;
Instructor: Poch, Robert Karl
Description: All of our actions, whether deliberate and carefully considered or reactive and unconscious, have consequences and effects. In this course, we are interested in understanding the ways our actions can make important differences. We will question whether the individual is always the agent for change, or whether the context that surrounds the individual helps or hinders social action. The instructors will bring their backgrounds in law, writing, literature, American studies, and working with multilingual students to examine how experiences and stories are represented in art, literature, legal cases, and film. Student work will culminate in a multi-media capstone project that invites them to document a person or community that is making a difference.

PSTL 1571 Computer Literacy and Problem Solving
4 credit(s); prerequisite: credit in Computer Science 1021 or 1025; Meets CLE req of Writing Intensive;
Instructor: Robertson, Douglas
Description: Students learn concepts and develop competencies in computer technologies most often used in social sciences and in business to help solve problems. Topics include using advanced word processing techniques to create complex written documents such as reports (including character and paragraph style sheets, mailmerge, formatting, tables, graphics, cross-references, headers, footnotes, and indexes), using an electronic spreadsheet to analyze data (including formulas, IF/THEN/ELSE, LOOKUP, different types of graphs, formatting), using a database management program to store, organize, and query data (including creating customized databases, modifying database structure, data verification and formatting, creating forms and reports, exporting/importing data, data extraction), and using presentation software to communicate ideas and findings in a multimedia format (including text, clipart, photos, tables, animations, and audio) to larger groups. Integration of the four applications is introduced. This is a computer-mediated course and there are no lectures. The instructor helps students individually during class as they work on course projects. Course uses Microsoft Office 2007 for Windows.

Style: Students work on computers, get help from instructor.
Grading: 30% mid exam, 35% final exam, 35% written homework.
Exam Format: Exams done on the computers in the classroom. Students modify documents as instructed.

PSTL 1906W Freshman Seminar: The Environment
3 credit(s); prerequisite: credit in Environmental Science 1011, 1012; Meets CLE req of Writing Intensive;
Instructor: Buturian, Linda J
Description: Water, Water. Everywhere? is a writing intensive freshman seminar with an environmental theme. Students will learn about the vital role water plays in the functioning of ecosystems, and will analyze some of the environmental challenges involving water. We will also explore literary and artistic expressions inspired by water. Selected readings, guest speakers, and films will help us understand how the ecosystem functions, inform us on challenges involving access to clean water, inspire us with artistic endeavors, and educate us about some of the efforts going on at the University and beyond to protect and celebrate the gift of clean water. Students will have an opportunity to visit a university or community organization of their choosing, and take photographs in order to create digital stories. The class will post their digital stories to a public website that they also create. Technical assistance will be provided. Students will write in the forms of first person narrative, an analytical paper, as well as weekly responses to readings. Throughout the seminar the instructor will be teaching effective writing strategies and providing feedback on students work. One paper can be revised after receiving teacher's feedback. The seminar will be an exciting, hands on experience from a multidisciplinary perspective, about a resource we can't live without.

PSTL 1993 Directed Study
1-8 credit(s), max credit 8; 1 completion allowed; prerequisite: instructor consent, college consent;
Instructor: Kroll, Patrick
Description: Student-initiated project in consultation with faculty mentor. Student determines topic, sets goals, designs a course of study, and finds an appropriate faculty member to work with collaboratively.

PSTL 3050 Exploring Facilitated Peer Learning Groups
S-N only, 1 credit(s); prerequisite: credit in Education 3050; Meets CLE req of Writing Intensive;
Instructor: Arendale, David R
Description: This course explores peer learning groups and the factors that enhance their effectiveness including: facilitating the learning process, integrating learning skill development and content knowledge acquisition, and application of appropriate theories of learning. The course is designed to connect the experience of serving as a facilitator of a peer learning group with a deeper examination of the underlying assumptions, learning theories, active learning strategies, group management protocols, and best practices in education.

PSTL 5050 Reflecting on Professional Development Through Facilitating Peer Learning Groups
S-N only, 1 credit(s); prerequisite: credit in Education 5050;
Instructor: Arendale, David R
Description: Student may contact the instructor or department for information.

PSTL 5105 Increasing Access and Success in Undergraduate Classrooms
A-F only, 3 credit(s);
Instructor: Arendale, David R
Description: This course provides a comprehensive overview for postsecondary teachers of best practices for effectively promoting student access and success within the undergraduate classroom with particular attention to traditionally under-represented and under-served populations. Students will apply knowledge to a postsecondary teaching site and design a sample course syllabus or learning activity. Course Learning Outcomes for this Specific Course: 1. gain knowledge about...
best-practices for improving lower-division undergraduate courses regarding increased access and success for students. 2. can make a basic audit and analysis of an undergraduate classroom setting regarding issues that can potentially impact its effectiveness for serving students who are historically-underrepresented in college. 3. better understanding of the requirements for implementing undergraduate classroom-based access and success approaches/programs. 4. make connections between educational theories and teaching lower-division undergraduate college courses to improve outcomes for students. 5. increase awareness of best-practices from other countries with increasing access and success in undergraduate courses. 6. gain expertise for embedding academic assistance and enrichment within the undergraduate classroom to increase student access and success. 7. develop an action plan for making specific changes in the lower-division undergraduate course taught by the student or the learning center that they are involved to increase access and success. Diversity: Because of the nature of this course, diversity is an essential component both in terms of subject matter as well as learning outcomes. Objectives: Develop a critical perspective and promote the reevaluation of personal assumptions, myths and historical interpretations; Cultivate the ability to examine questions and evidence from multiple perspectives and to compare specific cases to general principles; and Develop an informed perspective and greater awareness of and respect for individual, cultural, ethnic, and religious differences. Instructor Teaching and Learning Philosophy: My role as a teacher is to help construct a learning environment that is conducive for students to explore, learn, and develop new knowledge and skills.

Style: 25% Lecture, 5% Film/Video, 25% Discussion, 5% Small Group Activities, 10% Student Presentation, 10% Demonstration, 10% Field Trips, 5% Guest Speakers, 5% Web Based.

Grading: 15% mid exam, 20% reports/papers, 15% written homework, 10% in-class presentation, 10% class participation, 20% laboratory evaluation, 10% other evaluation.

Exam Format: Essay response

PSTL 5106 Multicultural Teaching and Learning in Diverse College Contexts
A-F only, 3 credit(s); prereq Grad student; Instructor: Miksch,Karen L
Description: This graduate course provides an overview of the issues, principles, and practices associated with effective college teaching in diverse postsecondary contexts. Students will explore theory and pedagogy as they relate to culturally responsive teaching from the perspectives of both the teacher and the learner in postsecondary settings. In addition to exploring teachers and students diverse and multiple social identities and a variety of student learning styles, course topics will include Critical Multicultural Education (CME), Social Justice Education (SJE), Universal Instructional Design (UID), Integrated Multicultural Instructional Design (IMID), problem-based learning, inquiry-based teaching, and other models for ensuring engagement and inclusion. The interaction of theory and practice is an important theme (and challenge) of the course. Students will have the opportunity to conduct classroom observations and design a syllabus as well as lead discussions.

Style: 70% Discussion, 20% Small Group Activities, 10% Student Presentation.

Grading: 50% reports/papers, 30% reflection paper, 10% in-class presentation, 10% class participation.

Preventive Science Minor
Institute of Child Development

PREV 8005 Prevention Science Capstone Course
OPT No Aud, 1 credit(s); prereq 8001; Instructor: Reynolds,Arthur J.
Description: Student may contact the instructor or department for information.

Program for Individualized Learning
20 Classroom Office Building

PIL 3251 Project 1 Seminar
S-N only, 5 credit(s); prereq PIL student, dept consent; Instructor: Hanson PhD,JoAnn Marie
Description: Student may contact the instructor or department for information.

Prosthodontics
9-450 MoosT

PROS 7110 Classic Prosthodontic Literature Review
A-F only, 2 credit(s); prereq instr consent; Instructor: Holtan,James R
Description: Student may contact the instructor or department for information.

PROS 7200 Advanced Clinical Prosthodontics I
A-F only, 5 credit(s); prereq instr consent; Instructor: Holtan,James R
Description: Student may contact the instructor or department for information.

Psychology
N-218 Elliott Hall

PSY 1001 Introduction to Psychology
4 credit(s); Credit will not be granted if credit has been received for: PSTL 1281; Meets CLE req of Social Sciences; Instructor: Brothen,Thomas
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policy, fee, and financial aid restrictions. Psy 1001 (online) utilizes a computer-assisted version of the Personalized System of Instruction (PSI) model. Key principles of PSI are specified learning objectives and study aids, small units (for us, these units are the chapters in your textbook), frequent testing with feedback to students, and mastery learning. The materials I’ve created for this course do three things. First, by focusing your attention on the main points, they make sure you don’t miss important information. Second, because feedback is essential to learning, the computer exercises give you feedback when it will do you the most good—right after you finish an exercise—so that you can use that feedback to improve your knowledge. Much of what you do can simply be called practice, but it is guided practice. This will take longer than just reading but the old saying is as true about psychology as anything else “practice makes perfect.”

Style: Online
Grading: 40% final exam, 60% written homework.

Exam Format: Online exam

PSY 1001 Introduction to Psychology
4 credit(s); Credit will not be granted if credit has been received for: PSTL 1281; Meets CLE req of Social Sciences; Instructor: Brothen,Thomas
Description: (Description forthcoming.)

Style: WebCT Internet exercises and quizzes

PSY 1001 Introduction to Psychology
4 credit(s); Credit will not be granted if credit has been received for: PSTL 1281; Meets CLE req of Social Sciences; Instructor: Luciana,Monica Marie
Description: This course is a printed distance learning section (known as a correspondence course) offered through Online and
Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit “Class URL” for ODL policies, including fee and financial aid restrictions. This course is designed to closely parallel the introductory psychology class offered to undergraduates at the University of Minnesota. It is a prerequisite for all other psychology courses. To the extent possible, the presentation of topics, format of written assignments, and exams conform to those used in the day school class. This study guide is organized into thirteen Lessons, with accompanying reading and written assignments. It is designed so that it can be completed within a single term. Style: This is a printed correspondence section.

Style: Written assignments = 50 pts Midcourse exam = 75 pts Final exam = 75 pts TOTAL = 200 * Extra credit course paper = up to 15 pts Exam Format: Supervised, in-person exams

PSY 1001H Honors Introduction to Psychology
A-F only, 4 credit(s); prereq Honors; Credit will not be granted if credit has been received for: PSLTL 1281; Meets CLE req of Social Sciences;
Instructor: Brothen, Thomas
Description: (Description forthcoming.)
Style: WebCT Internet exercises and quizzes

PSY 1511 Psychology
A-F only, 3 credit(s); prereq Only Rochester-admitted students will be able to enroll in this course.; Meets CLE req of Social Science Core;
Instructor: Bartels, Jared Matthew
Description: Student may contact the instructor or department for information.

PSY 1902 Freshman Seminar: Asian American Psychology
3 credit(s); prereq Fr; Meets CLE req of Diversity and Soc Justice US;
Instructor: Lee, Richard M
Description: Student may contact the instructor or department for information.

PSY 1905 Freshman Seminar: What is the Human Mind?
A-F only, 3 credit(s), max credits 6; prereq freshman;
Instructor: Maroolek, Chad James
Description: You are reading the description of a seminar. That is, some part of you is capable of taking a series of shapes as visual input, abstracting intended meaning from them, organizing the information, and evaluating it (e.g., fascinating seminar?!). Your mind accomplishes this task, not your lungs or heart. What is this mind? That is capable of such complex internal information processing! Is it just a flurry of activated brain cells, or something non-physical? One of the most intriguing aspects of the universe is that you can think, that minds operate as entities apparently crucially tied to physical brains but are also importantly different. In this seminar, we will examine conceptions of the human mind from psychological, philosophical, and neuroscientific perspectives. Can science and critical analysis offer a concrete and compelling specification of the human mind?

PSY 1905 Freshman Seminar: The Cultural Psychology of Storytelling
A-F only, 3 credit(s), max credits 6; prereq freshman;
Instructor: Syed, Moin
Description: How do you know a person? I mean how do you really know who a person is? Likely that person has told you a bit about his or her past life experiences. It is also likely that the way this person told you about those experiences was in the form of a story. In this seminar we will explore the form and content of the stories that people tell about their lives, and how these culturally-grounded stories are indicative of the psychologies of the individuals, groups, and societies who produce them. We will pay particular attention to the similarities and differences in these stories within and between diverse cultural communities in the U.S. and the world.

PSY 3001W Introduction to Research Methods
3 credit(s); prereq [1001, [2801 or 2801H]] or department consent; Credit will not be granted if credit has been received for: PSY 3005V; Meets CLE req of Writing Intensive;
Instructor: Stewart, Mark A
Description: PSY 3001W is an introduction to the basic concepts and procedures used to conduct and evaluate research in Psychology. Emphasis is placed on understanding traditional research methods, applying sound experimental techniques in order to produce interpretable results, and evaluating scientific claims. PSY 3001W is a writing intensive (WI) course. As such, students will complete a number of writing assignments, culminating in an APA style research report. This course meets the writing intensive requirement stating that at least 33% of the student’s final grade must be based upon student writing. Prerequisites: PSY 1001 (Intro Psychology), PSY 2801 (Intro to Psychological Measurement and Data Analysis), and at least sophomore standing.
Style: 50% Lecture, 50% Laboratory.
Grading: 15% mid exam, 25% final exam, 40% reports/papers, 10% written homework, 10% laboratory evaluation.

PSY 3011 Introduction to Learning and Behavior
3 credit(s); prereq 1001;
Instructor: Peterson, Gail Burton
Description: This course introduces you to the fundamental phenomena and principles of learning and behavior analysis by surveying the major theoretical and empirical approaches of the twentieth century. The material in this course will give you an appreciation of the current state of the field. While the course emphasizes basic academic and scientific issues, some of the practical applications of the theories and principles will also be examined. The Fall semester CLA section 001 includes both classroom and online components. There is also a fully online section offered every term through Online and Distance Learning (ODL), College of Continuing Education.

PSY 3031 Introduction to Sensation and Perception
3 credit(s); prereq 1001;
Instructor: Borchert, Elizabeth M
Description: Student may contact the instructor or department for information.

PSY 3051 Introduction to Cognitive Psychology
3 credit(s); prereq 1001;
Instructor: Jiang, Yuhong
Description: Welcome! This course will provide you with an overview of the theoretical and empirical approaches which constitute Cognitive Psychology. Cognitive psychologists explore the nature of cognitive processes such as attention, memory, concept, reasoning, perception, and language processing. Our goals are to understand (1) the representations and processes in our minds that underwrite these capabilities, and (2) how they are implemented in the underlying hardware, the human brain. Stated more simply, our goal is to understand how the mind works, and how the brain works to produce such a mind. Trying to understand our own minds is one of the most ambitious and exciting projects in all of sciences. This course will introduce you to some of the major tools, assumptions, and theories from a cognitive and cognitive-neuroscience perspective, and expose you to some of the more important results obtained thus far. Student evaluation from past years has been overwhelmingly positive. A copy of last year’s syllabus can be found at http://jianglab.psych.umn.edu/webpages/teaching.htm.
Style: 85% Lecture, 5% Film/Video, 10% Laboratory.
Grading: 30% mid exam, 40% final exam, 30% reports/papers.

PSY 3061 Introduction to Biological Psychology
3 credit(s); prereq 1001 or Biol 1009; Credit will not be granted if credit has been received for: PSY 5061;
Instructor: STAFF
Description: Instructor: Jonathan Gewirtz. The course begins with brief overviews of the structure of the central nervous system, basic principles of nervous conduction and synaptic transmission, neurotransmitter systems, and basic techniques used in biological psychology research. We will then review...
current knowledge on the biological substrates of a range of behaviors and mental processes, including perception, memory, emotion, and sleep. The course will also examine the biological basis of a variety of psychological disorders and the behavioral effects of mental illness, including addiction, depression, and anxiety. By the end, you should be comfortable with the basic details of brain function and have gained a general understanding of the biology of behavior, mental states, and mental illness. You should also have begun to develop the skills to understand techniques and evaluate results of neurobiological and behavioral experiments.

**Style:** 80% Lecture, 10% Discussion, 10% Small Group Activities.

**Grading:** 75% mid exam, 25% final exam. 3 mid term exams

### PSY 3061 Introduction to Biological Psychology

3 credit(s); prereq 1001 or Biol 1009; Credit will not be granted if credit has been received for: PSY 5061;

**Instructor:** Gewirtz, Jonathan C

**Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a student group. Visit “Class URL” for ODL policy, fee, and financial aid restrictions.

Biological psychology is the study of behavior through the analysis of the nervous system and the study of the nervous system through analysis of behavior. The philosophical relationship between the "mind" and the brain has been debated for centuries. Discussions involve some of the most important concepts about human existence, such as "free will" and the existence of the soul. Here is the first (but certainly not the last) place that our own rather strongly held perspective will spill over into this study guide. The modern biological psychologist has found that our power to understand and explain behavior is greatest if we act under the hypothesis that the brain controls behavior. If we are to understand behavior, we must go to its source. Thus, to understand behavior, you must understand the brain. The pursuit of such understanding is a challenge, but it is an enormously tantalizing pursuit with great rewards.

**Style:** Online

**Grading:** 40% mid exam, 30% final exam, 30% written homework.

**Exam Format:** Online exams

### PSY 3101 Introduction to Personality

3 credit(s); prereq 1001; Credit will not be granted if credit has been received for: PSY 5101;

**Instructor:** DeYoung, Colin G

**Description:** This course provides a broad overview of theory and research in the field of personality psychology. Personality psychology addresses some of the most central and interesting questions in psychology: Why do people think, feel, and act in the ways they do? What makes people different from each other? What are the essential components of an individual's personality? This course discusses answers to these questions as they have been formulated from the beginnings of psychology, over a century ago, up to the present time, drawing on up-to-date research to suggest which theories are likely to be empirically valid. Students should get a sense of the various approaches to personality psychology as different perspectives integrated into a larger story about the extent of our understanding of the structure, dynamics, and sources of personality.

### PSY 3135 Introduction to Individual Differences

3 credit(s); prereq 2801 or 2801H or instr consent; Credit will not be granted if credit has been received for: PSY 5135;

**Instructor:** Ludeke, Steven G

**Description:** Student may contact the instructor or department for information.

### PSY 3201 Introduction to Social Psychology

4 credit(s); prereq 1001 or instr consent;

**Instructor:** Hunt, Corrie Valentine

**Description:** Student may contact the instructor or department for information.

### PSY 3201 Introduction to Social Psychology

3 credit(s); prereq 1001 or instr consent;

**Instructor:** Kim, John Smithe

**Description:** Social psychology is "the scientific study of how people's thoughts, feelings, and behaviors are influenced by the actual, imagined, or implied presence of others." The impact of the social environment is powerful, as humans can be made to think and behave in ways that, at least on the surface, go wildly against their self-interest. The impact of the social environment is also complicated, as the social environment comprises numerous "others" (actual, imagined, or implied), all of whom are potential sources of influence. Certainly, we do not believe that the social environment is the only thing that matters, but the key message of this course will be that the social environment influences human behavior more so than people intuitively believe, and in ways that might deviate from expectations. Social psychology is not just a regurgitation of common sense. Although some of the material will be intuitive on a "common-sense" level, there are two dangers with assuming that social psychology is just telling us what we already know. 1) Sometimes, the common wisdom is not as clear as it seems. 2) There are times when the common wisdom is flat-out wrong.

Common sense has its place, but within the field of social psychology, common sense means nothing without evidence. Social psychology is so vast that there is simply no way to cover even a fraction of the field in just a semester. That said, this course will provide an overview of the key ideas that have guided the field from its inception to its present state. Topics will include social influence, intergroup relations (i.e., stereotypes and prejudice), attitudes, attraction and interpersonal relationships, culture, prosocial behavior, aggression and other assorted subjects at my discretion. In the past, students have found the study of social psychology inherently enjoyable as the subject matter is easily applicable to real-world situations. Hopefully, this will be your experience as well. Workload consists of four exams (and an optional fifth exam), plus five short written assignments (1-2 pages each).

### PSY 3206 Introduction to Health Psychology

3 credit(s); prereq 1001;

**Instructor:** Wlaschin, Jhon Thomas

**Description:** Student may contact the instructor or department for information.

### PSY 3301 Introduction to Cultural Psychology

A-F only, 3 credit(s); prereq 1001;

**Instructor:** Kim, Oh Myo

**Description:** The purpose of this course is to provide an introduction to cultural psychology and consider current theories and research on culture, race, and ethnicity within the fields of cultural psychology, cross-cultural psychology, and minority psychology. Emphasis will be placed on (1) gaining a better understanding of the ways in which sociocultural contexts influence psychological processes, (2) learning about empirical methods in cultural psychology, and (3) achieving a better appreciation of cultural groups within and outside of the United States. Students will also consider issues of culture in interpretation of personal experiences and in application of cultural diversity issues to various settings.

### PSY 3511 Introduction to Counseling Psychology

3 credit(s); prereq 1001;

**Instructor:** Pitch, Stephanie T

**Description:** Student may contact the instructor or department for information.

### PSY 3511 Introduction to Counseling Psychology

3 credit(s); prereq 1001;

**Instructor:** Perera, Sulani

**Description:** This course is designed to provide an introduction to the field of counseling psychology. Broadly, topics addressed at the beginning of the course will include the history of the discipline, professions within it, and how counseling psychology distinguishes itself from other specialties in the broader fields of psychology and mental health. The bulk of the course will focus on the theories that practicing counseling psychologists and researchers use to inform their work (i.e., formulating case
conceptualizations or hypotheses). Additionally, we will integrate a variety of topics of special relevance to counseling psychology throughout the course including ethics, formal assessment, working with cultural diversity, empirical support for treatments, and ongoing research in the field regarding the processes underlying client change and outcomes.

**PSY 3604 Introduction to Abnormal Psychology**
- **3 credit(s); prereq 1001; Credit will not be granted if credit has been received for:** PSY 5604H; Instructor: Klimes-Dougan, Bonnie
- **Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a student group. Visit “Class URL” for ODL policies, including fee and financial aid restrictions. The field of abnormal psychology (also known as psychopathology) is diverse, as you can see by leafing through the textbook for this course. It includes such topics as bipolar disorder, post-traumatic stress syndrome, AIDS dementia complex, pedophilia, stuttering, and pathological gambling. Each of these areas, as well as hundreds of others, has its own specialists and research. This course will provide you with a complete, although certainly not exhaustive, overview of each area.
- **Style:** Online
- **Grading:** --8 written assignments: 62.5% --2 online exams: 37.5%
- **Exam Format:** Online

**PSY 3604 Introduction to Abnormal Psychology**
- **3 credit(s); prereq 1001; Credit will not be granted if credit has been received for:** PSY 5604H; Instructor: Schissel, Ann M
- **Description:** Student may contact the instructor or department for information.

**PSY 3604 Introduction to Abnormal Psychology**
- **3 credit(s); prereq 1001; Credit will not be granted if credit has been received for:** PSY 5604H; Instructor: Lucha, Cornelia
- **Description:** Student may contact the instructor or department for information.

**PSY 3604 Introduction to Abnormal Psychology**
- **3 credit(s); prereq 1001; Credit will not be granted if credit has been received for:** PSY 5604H; Instructor: Klimes-Dougan, Bonnie
- **Description:** Course Description This course will introduce students to a multidimensional approach to conceptualizing various types of psychological disorders. During this course, students will be responsible for learning basic descriptive psychopathology as described in the DSM-IV-TR as well as descriptive information including prevalence rates, ages of onset, and cultural differences. An introductory overview to some of the causes and treatments of psychopathology will be provided to the extent that it helps students understand the various mental disorders. A prerequisite for this course is PSY 1001.
- **Style:** 85% Lecture, 5% Film/Video, 5% Discussion, 5% Guest Speakers.
- **Grading:** 20% mid exam, 20% final exam, 20% reports/papers, 40% additional semester exams.

**PSY 3617 Introduction to Clinical Psychology**
- **3 credit(s); prereq 3604 or 5604H; Instructor:** Klimes-Dougan, Bonnie
- **Description:** Course Description This course is meant to familiarize students with the field of clinical psychology, primarily as it exists in the U.S. The course first briefly discusses the history of clinical psychology, the most widely accepted scientist practitioner approach to clinical psychology and the current status of the field of clinical psychology. The course covers clinical assessment, psychological interventions, and psychopathology and treatment research. This course may help students, considering a career in clinical psychology, decide whether this field appeals to them. Please make sure you have taken the prerequisite before signing up for this course.

**PSY 3711 Introduction to Industrial and Organizational Psychology**
- **3 credit(s); prereq 1001, [2801 or equiv]; Instructor:** Shen, Winny
- **Description:** Student may contact the instructor or department for information.

**PSY 3801 Introduction to Psychological Measurement and Data Analysis**
- **3 credit(s); prereq credit will not be granted if credit already received for:** Psy 2801 or Psy 2801H; Instructor: Felson Moses, Jennifer Michelle
- **Description:** PSY 2801 is specifically designed for students who plan to major in psychology. It is an introduction to the basic concepts and procedures related to the measurement and analysis of psychological variables. The main focus of the course will be learning the appropriate selection and use of statistical tools to describe and evaluate results of psychological research. The course is designed to be approachable to students from a wide variety of "math" backgrounds and we endeavor to help even the most math-phobic!
- **Style:** 66% Lecture, 34% Laboratory.
- **Grading:** 20% mid exam, 20% final exam, 40% written homework, 20% additional semester exams.

**PSY 3801 Introduction to Psychological Measurement and Data Analysis**
- **3 credit(s); prereq credit will not be granted if credit already received for:** Psy 2801 or Psy 2801H; Instructor: Nydick, Steven Warren
- **Description:** Student may contact the instructor or department for information.

**PSY 3801 Honors Introduction to Psychological Measurement and Data Analysis**
- **3 credit(s); prereq credit will not be granted if credit already received for:** Psy 2801 or Psy 2801H; Instructor: Weisberg, Yanna J
- **Description:** Student may contact the instructor or department for information.

**PSY 3902W Major Project in Psychology**
- **A-F only, 3 credit(s); prereq [2801 or equiv], [3001W or 3005W], psy major, sr; Meets CLE req of Writing Intensive; Instructor:** Niccoli-Waller, Caprice
- **Description:** In this course, you will have the opportunity to review and reflect on some of the principles of research and writing within the field of psychology. You will also complete a writing project that is designed to let you focus on a topic of interest and to showcase your skills as a reader and potential contributor of the psychological literature. You will attend 3 lectures at the start of the term and then work in labs under graduate student assistance. At the end of the term, you will present your work in a class poster session. For additional course details please refer to the following site: [Link](#).
PSY 3960 Undergraduate Seminar in Psychology
1-5 credit(s), max credits 45, 9 completions allowed; prereq 1001;
Instructor: Overmier, J. Bruce
Description: Title: Animal Models of Human Dysfunction.
Instructor: Overmier, J. Bruce Description: Discovery of the
causal mechanisms for human dysfunctions often requires
application of the experimental method. But this method may not
be appropriate or ethical with humans. Then, animals may be
called upon as models for a particular disorder. How are models
developed and validated? What can we learn? Have models
been successes? Failures? What are the ethical and regulatory
considerations for such work? Several exemplar efforts at
modeling will be reviewed and discussed. Workload: 30 pages of
reading per week, presentations by students. Grades: Based on
presentations by students and contributions to discussions.
Style: 20% Lecture, 80% Discussion. Students will report and
lead some discussions
Grading: 25% reports/papers, 50% in-class presentation, 25%
class participation.

PSY 4036 Perceptual Issues in Visual Impairment
3 credit(s); prereq 1001 or instr consent;
Instructor: Lege, Gordon Ernest
Description: This course applies contemporary research
findings to an improved understanding of the real-world abilities
of visually disabled people. Topics will include prevalence of
low-vision and blindness; three Dimensions of Vision Loss
(acuity, contrast sensitivity, and visual field); auditory and tactile
perception; brain-imaging studies; reading and low vision; Braille
reading; synthetic speech; adaptive technology for reading;
space perception; navigational technology (ranging from canes
to GPS); driving with low vision; object recognition and face
recognition; adaptive technology for computer access; and
recreational activities. Each class session will be divided
between lecture and hands-on lab exercises with state-of-the-art
adaptive technology. The course is designed for a variety of
audiences including psychology majors, students with vision
disabilities, students with career interests in rehabilitation or eye
care (special education, occupational therapy, physical therapy,
pre-optometry, pre-med, or nursing), and for professionals with
related interests such as special education. This course will be
web enhanced. For an example see the Fall 2008 website.
Style: 40% Lecture, 20% Discussion, 40% Laboratory.
Grading: 20% mid exam, 20% final exam, 35% reports/papers,
25% laboratory evaluation.
Exam Format: Short factual answers and short essays.

PSY 4949V Honors Research Practicum
4 credit(s); prereq [3005W/V or 3001/W/V]; honors psych;
Meets CLE req of Writing Intensive;
Instructor: Fletcher, Charles R
Description: The major goals of this course are to familiarize
you (as a Psychology Department honors major) with research
opportunities available within the University of Minnesota
Psychology Department, provide you with practical experience conducting
psychological research, and prepare you to write an honors
thesis in psychology. To achieve these goals you will be required
to work approximately nine hours each week on a research
project designed and supervised by a faculty member or
graduate student in a formal in-class presentation, and write a
10 - 15 page research report. You will also be required to
attend class each week and complete the required readings and
assignments before each class.
Style: 25% Lecture, work on individual research projects
Grading: 50% reports/papers, 25% in-class presentation, 25%
class participation.
Exam Format: none

PSY 5012 Learning and Cognition in Animals
4 credit(s); prereq 3011 or 4011 or honors or grad student or instr consent;
Instructor: Overmier, J. Bruce
Description: Psy 5012 Learning and Cognition in Animals (Sec 001); 4 cr;
prereq 3011 or 4011 or honors or grad student or instr consent;
meets DELM req of classroom Instructor: Overmier, J.
Bruce Description: Are you "smarter" than a rat? How can you
know? This course provides review and evaluation of historical and
contemporary approaches to key questions, theories, methods,
and data about different forms of learning, behavior,
and elementary cognitive processes as explored in animals.
Although the emphasis is on animal models, implications of the
findings for insights into human learning, behavior, and cognition
are considered. The course uses primarily lecture format. It is
intended for advanced undergraduates and beginning graduate
students in the behavioral, biological, and educational sciences.
Class time: 85% lecture, 5% Closed Circuit TV, 10% Discussion
Work load: 45 pages of reading per week, 3 exams Grade: 50%
mid-semester exam(s), 50% final exam Exam Format: multiple
choice and short essay

PSY 5036W Computational Vision
3 credit(s); prereq [3031 or 3051], [Math 1272 or equiv] or
instr consent; Meets CLE req of Writing Intensive;
Instructor: Kersten, Daniel John
Description: One of the great mysteries of psychology and brain
science is how the human visual system determines what and
where objects are just by looking. This is the problem of vision.
The perception of what is out there in the world is accomplished
continually, instantaneously and usually without conscious
thought. The very effortlessness of perception disguises the
underlying difficulty of the problem. Vision is important because it is
one of the principle routes to our acquisition of knowledge, as
well as a guide to its utilization. The study of vision has attracted
researchers from many disciplines outside of psychology,
including computer science, mathematics, physics, engineering,
and neuroscience. This class takes a multi-disciplinary approach
to vision, combining lectures and interactive computer
programming exercises to learn how the visual system functions.
Prerequisites: Experience with calculus, linear algebra and
of Vision. Sunderland, Massachusetts: Sinauer. The
programming assignments will use the Mathematica
programming environment. No prior experience with
Mathematica is necessary.
Grading: There will be a mid-term, final examination,
programming assignments, as well as a final project. Weighting:
Homework/programming : 28%, Mid-term examination 16%,
Final examination: 16% Final project : 40% (three parts:
2%+5%+33%)

PSY 5062 Cognitive Neuropsychology
3 credit(s); prereq 3031 or 3051;
Instructor: He, Sheng
Description: This course will survey the consequences of
different types of brain damage on human perception and
cognition. The goal is to understand the neural mechanisms of
normal perceptual and cognitive functions. Major phenomena
that will be covered include: Blindsight (seeing without
awareness), Visual Agnosia (failure to recognize object),
Prosopagnosia (impaired recognition of faces), Neglect
(failure to attend to part of the world), the split brain, Spoken
language deficits, reading and writing disorders, memory
disorders, central planning deficits. The emphasis is on function
and phenomenology, with minimal amount of brain anatomy.
This course is aimed at undergraduate and beginning graduate
students who are interested in psychology and neuroscience.
Text: A.J. Parkin "Explorations in Cognitive Neuropsychology".
Style: 90% Lecture, 5% Discussion.
Grading: 30% mid exam, 50% final exam, 20% problem solving.
Exam Format: Multiple choice and short essay

PSY 5137 Introduction to Behavioral Genetics
3 credit(s); prereq 3001W or equiv or instr consent;
Instructor: McGue, Matt
Description: This course will survey the consequences of
different types of brain damage on human perception and
cognition. The goal is to understand the neural mechanisms of
normal perceptual and cognitive functions. Major phenomena
that will be covered include: Blindsight (seeing without
awareness), Visual Agnosia (failure to recognize object),
Prosopagnosia (impaired recognition of faces), Neglect
(failure to attend to part of the world), the split brain, Spoken
language deficits, reading and writing disorders, memory
disorders, central planning deficits. The emphasis is on function
and phenomenology, with minimal amount of brain anatomy.
This course is aimed at undergraduate and beginning graduate
students who are interested in psychology and neuroscience.
Text: A.J. Parkin "Explorations in Cognitive Neuropsychology".
Style: 90% Lecture, 5% Discussion.
Grading: 30% mid exam, 50% final exam, 20% problem solving.
Exam Format: Multiple choice and short essay

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
Description: This course focuses on the application of genetic methods to human and animal behavior. Genetic methods discussed include both traditional methodologies like twin and adoption studies as well as cytogenetic and molecular genetic methods. Behavioral applications covered include: Intelligence and mental retardation, personality, schizophrenia, affective illness, and alcoholism.

Style: 100% Lecture.

Grading: 30% mid exam, 40% final exam, 30% reports/papers.

Exam Format: Essay

PSY 5207 Personality and Social Behavior
A-F only, 3 credit(s); preq 3101 or 3201 or honors or grad student or instr consent ;
Instructor: STAFF

Description: Conceptual/methodological strategies for scientific study of individuals and their social worlds. Applications of theory/research to issues of self, identity, and social interaction.

PSY 5707 Personnel Psychology
4 credit(s); preq [[3001W or equiv], 3711] or instr consent credit will not be granted if credit received for: 5701, 5703; Credit will not be granted if credit has been received for:
PSY 5701;
Instructor: Ones, Deniz S

Description: The course deals with the application of psychological research and theory to issues in personnel recruitment, selection, training and the measurement of human performance. The first half of the course is devoted to modeling, measuring and predicting individual performance in work settings. Different approaches to occupation analysis are examined for the purpose of performance assessment. Different prediction tools such as ability and personality tests, biographical information; and their validity, utility, and fairness are then discussed. The second half of the course is devoted to theories, methods, and research pertaining to improving performance of individuals at work through learning and instruction. Appropriate knowledge and skill structures, the interaction between ability level and training methods, and the influence of learner motivation are stressed. The general purposes of the course are to provide the student with a comprehensive and useful framework for how to identify staffing and training problems, design selection and training programs and evaluate results. The student should also gain considerable familiarity with what the field of personnel psychology is like as a profession. The course attempts to show how many different areas of theory and research in psychology can be brought to bear on organizational problems and issues.
Style: 70% Lecture, 30% Discussion.
Grading: 50% mid exam, 50% final exam.
Exam Format: Each exam includes multiple types of questions (e.g., multiple choice, matching, definition, short answer and essay).

PSY 5862 Psychological Measurement: Theory and Methods
3 credit(s); preq [PSY 3801 or PSY 3801H] or equiv;
Instructor: Waller, Niels Gordon

Description: Psychological measurements are used in all applied areas of psychology. Tests and other measuring instruments that quantify human behavior are used by counseling and clinical psychologists, school psychologists, industrial/organizational psychologists, and any psychological researcher doing research that involves individual differences. Psychological measurement methods are also used by researchers in a wide variety of other fields including sociology, political science, education, and medical and nursing research. Psy 5862 is concerned with the process of quantification in psychology and related fields -- why do we quantify, how do we quantify, and how do we know if our measurements of (or measuring instruments constructed by others) are functioning properly? The discussion includes all types of psychological measurement instruments -- tests of ability and achievement, and scales for measuring personality, interests, and preferences. The focus is not on specific measuring instruments, but on methods and procedures that are used to develop various types of instruments. Procedures for evaluating instruments in terms of their reliability, validity, and other characteristics are emphasized. Although the material is quantitative, the presentation is primarily conceptual. However, a basic knowledge of statistics is assumed -- you should at least know what a mean and a standard deviation are and have had some exposure to the idea of correlation.
Style: 100% Lecture.
Grading: 40% mid exam, 60% final exam.
Exam Format: Essay: short- and long-answer

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; preq instr consent, dept consent;
Instructor: Iacono, William George
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; preq instr consent, dept consent;
Instructor: Kersten, Daniel John
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; preq instr consent, dept consent;
Instructor: Frazier, Patricia Ann
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; preq instr consent, dept consent;
Instructor: Grove, William Merrill
Description: Research topics include clinical judgment and actuarial data combination, philosophy of statistics and scientific theory testing, and classification of the major psychiatric disorders (including categorical vs. dimensional models). Research on taxometrics (a robust form of multivariate mixture modeling) is also featured.
Grading: 100% reports/papers.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; preq instr consent, dept consent;
Instructor: Simpson, Jeffrey A
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; preq instr consent, dept consent;
Instructor: Marsolek, Chad James
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; preq instr consent, dept consent;
Instructor: Waller, Niels Gordon
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; preq instr consent, dept consent;
Instructor: Rothman, Alexander John
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; preq instr consent, dept consent;
Instructor: Luciana, Monica Marie
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Thomas, Mark John
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Kuncel, Nathan Richard
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: MacDonald III, Angus
Description: The TRICAM laboratory explores questions in basic cognitive and affective neuroscience, the biological bases of psychopathology, and the measurement of group differences. Methodologies include functional magnetic resonance imaging (fMRI), behavioral genetics (twin and family studies), clinical assessment and cognitive testing. Current research includes (1) understanding how executive control mechanisms, which are associated with prefrontal cortex functioning, interact with attention, affective processing, social interactions and decision-making; (2) evaluating how impairments in such mechanisms may be related to schizophrenia, psychosis and externalizing behaviors and the genes associated with these conditions; and (3) methods development for analyzing fMRI, and psychometric confounds in the measurement of group differences. Eligibility: Must be an undergraduate student at the University of Minnesota; must have at least a 3.5 GPA; and must have taken or be concurrently enrolled in the following courses as prerequisites: PSY 1001, PSY 3005W, & PSY 3604. Responsibilities & Expectations: Attend weekly laboratory meetings (including presenting research findings as indicated); attend bi-weekly journal club meetings (including leading one discussion); Complete work as in the laboratory in the amount of 3 hrs per credit per week (generally 2 mornings or afternoons per week); and write an APA-style research lab report (9-15 pp). Duties and activities include but are not limited to: running participants in research studies, data management & analysis, active participation in lab meetings and journal club. Grades will be based on: 1) laboratory attendance and fulfillment of responsibilities; 2) lab meeting attendance (with exceptions to be arranged with the instructor); 3) journal club presentation; 4) final lab report.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Stellmack, Mark A
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Olman, Cheryl Annette
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Legge, Gordon Ernest
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Borgida, Eugene
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Overmier, J. Bruce
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Ones, Deniz S
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Sackett, Paul R
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Campbell, John P
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Hansen, Jo-Ida C
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Gonzales, Marti Hope
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Snyder, Mark
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Fletcher, Charles R
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: He, Sheng
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Krueger, Robert
Description: Student may contact the instructor or department for information.
PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Lee Richard M
Description: This directed research is designed for undergraduate and graduate students interested in the role of race, ethnicity, and culture in the development and well-being of individuals and families from diverse racial and ethnic backgrounds with a particular focus on adopted individuals and families and children of immigrant parents. 
Style: 20% Discussion, 80% Laboratory. Students are expected to attend a weekly lab group meeting and reading group.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 completions allowed; prereq instr consent , dept consent ;
Instructor: Koustiala Wilma
Description: Student may contact the instructor or department for information.

PSY 8203 Impression Management
3 credit(s); prereq Grad psych major; 8208 recommended; instr consent ;
Instructor: Gonzales, Marli Hope
Description: Student may contact the instructor or department for information.

PSY 8205 Proseminar: Research in Social Psychology
3 credit(s), max credits 15, 5 completions allowed; prereq Psych PhD student;
Instructor: Snyder, Mark
Description: Student may contact the instructor or department for information.

PSY 8210 Law, Race, and Social Psychology
A-F only, 3 credit(s); prereq 2nd or 3rd yr law student or PhD student in social science doctoral program;
Instructor: Borgida,Eugene  
Description: Student may contact the instructor or department for information.

PSY 8211 Proseminar in Political Psychology I  
S-N only, 1 credit(s); prereq Political Psychology grad minor; Credit will not be granted if credit has been received for: POL 8307;  
Instructor: Goren,Paul Nurullah  
Description: Student may contact the instructor or department for information.

PSY 8501 Counseling Psychology: History and Theories  
3 credit(s); prereq Counseling psych grad student or instr consent;  
Instructor: Frazier,Patricia Ann  
Description: Student may contact the instructor or department for information.

PSY 8503 Interviewing and Intervention  
3 credit(s); prereq 8501, 8502 or instr consent;  
Instructor: Lee,Richard M  
Description: Student may contact the instructor or department for information.

PSY 8510 Counseling Psychology Beginning Practicum:  
General  
S-N only, 1-6 credit(s), max credits 6, 1 completion allowed; prereq Counseling psych grad student, 8501, 8502, 8503 or equiv, instr consent;  
Instructor: Hansen,Jo-Ida C  
Description: Student may contact the instructor or department for information.

PSY 8514 University Counseling Practicum I  
S-N only, 4-6 credit(s), max credits 6, 1 completion allowed; prereq Counseling psych grad student, 8501, 8502, 8503 or equiv, instr consent; Credit will not be granted if credit has been received for: EPSY 8513;  
Instructor: Beckham-Chasonoff,Sarra  
Description: Student may contact the instructor or department for information.

PSY 8542 Ethics in Psychology  
S-N only, 3 credit(s); prereq Counseling or clinical psych grad student or instr consent;  
Instructor: Brunnquell,Donald Joseph  
Description: Philosophical systems of ethics and their implications for applied psychology (clinical, counseling, industrial & organizational). Practical ethical dilemmas that emerge in applied psychology, and solutions to them. This course is in a discussion format, with assigned readings in behavior science and medical ethics for each class session. There is a midterm examination and an assigned paper to write about an ethical dilemma (student's choice of topic, approved by the instructors).  
Grading: 45% mid exam, 45% reports/papers, 5% in-class presentation, 5% class participation.

PSY 8560 Counseling Psychology Advanced Practicum I:  
General  
S-N only, 1-6 credit(s), max credits 6, 1 completion allowed; prereq [[[8501, 8502, 8503] or equiv],[[8510, 8511] or [8514, 8515] or equiv]], counseling psych grad student) or instr consent;  
Instructor: Frazier,Patricia Ann  
Description: Student may contact the instructor or department for information.

PSY 8565 Counseling Psychology Advanced Practicum I: Vocational Assessment Clinic  
S-N only, 1-6 credit(s), max credits 6, 1 completion allowed; prereq [[[8501, 8502, 8503] or equiv],[[8514, 8515] or equiv]], counseling psych grad student] or instr consent;  
Instructor: Conlon,Amy Lynne  
Description: Student may contact the instructor or department for information.

PSY 8570 Counseling Psychology Internship I  
S-N only, 1-12 credit(s), max credits 36, 36 completions allowed; prereq Counseling psych PhD candidate, instr consent;  
Instructor: Hansen,Jo-Ida C  
Description: Student may contact the instructor or department for information.

PSY 8611 Assessment I  
A-F only, 5 credit(s); prereq Clinical psych grad student;  
Instructor: Grove,William Merrill  
Description: Dr. Grove's part of this course covers clinical judgment and data combination. Heuristic and mathematically correct decision aids are featured. Topics include errors in clinical judgment and how to avoid them, base rates and Bayes theorem, and signal detection theory.  
Grading: 90% final exam, 10% class participation.

PSY 8620 Clinical Psychology Practicum  
S-N only, 1-6 credit(s), max credits 36, 8 completions allowed; prereq instr consent;  
Instructor: MacDonald Ill,Angus  
Description: Student may contact the instructor or department for information.

PSY 8621 Clinical Intervention I  
A-F only, 1-3 credit(s), max credits 3, 1 completion allowed; prereq Clinical psych grad student;  
Instructor: Ayers,James L  
Description: Student may contact the instructor or department for information.

PSY 8702 Seminar in Industrial and Organizational Psychology II  
A-F only, 3 credit(s); prereq instr consent;  
Instructor: Campbell,John P  
Description: Student may contact the instructor or department for information.

PSY 8814 Analysis of Psychological Data  
4 credit(s); prereq Undergrad course in statistics, grad student in [psychology or child psychology], instr consent;  
Instructor: Ayer,Rick D  
Description: Student may contact the instructor or department for information.

PSY 8881 Seminar: Quantitative and Psychometric Methods  
3 credit(s), max credits 15, 5 completions allowed;  
Instructor: Weiss,David J  
Description: Student may contact the instructor or department for information.

PSY 8935 Readings in Behavioral Genetics and Individual Differences Psychology  
S-N only, 1 credit(s), max credits 10, 10 completions allowed; prereq 5135, 5137 or instr consent;  
Instructor: Mc Gue,Matt  
Description: Student may contact the instructor or department for information.

PSY 8960 Graduate Seminar in Psychology  
1-4 credit(s), max credits 36, 9 completions allowed; prereq Psychology grad student or instr consent;  
Instructor: Weiss,David J  
Description: Student may contact the instructor or department for information.

PSY 8960 Graduate Seminar in Psychology  
1-4 credit(s), max credits 36, 9 completions allowed; prereq Psychology grad student or instr consent;  
Instructor: Ones,Denz S  
Description: Student may contact the instructor or department for information.
PA 1961W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: EDPA 1301W; Meets CLE req of Writing Intensive;
Instructor: Peacock,Katie
Description: Student may contact the instructor or department for information.

PA 1961W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: EDPA 1301W; Meets CLE req of Writing Intensive;
Instructor: Knudson,Laura J
Description: Introduction to leadership theory, personal development, interpersonal relations, leadership at University of Minnesota. Personal assessment, written/verbal presentation, resume writing, electronic communication, goal setting, coping with group dynamics.

PA 1961W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: EDPA 1301W; Meets CLE req of Writing Intensive;
Instructor: MoFadden,Colin Hamilton
Description: Student may contact the instructor or department for information.

PA 1961W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: EDPA 1301W; Meets CLE req of Writing Intensive;
Instructor: Fredrickson,Brian Steven
Description: This introductory level course presents leadership using a personal leadership perspective and framework. Students taking this course will have the opportunity to examine their own views on leadership, explore the differences between personal and positional leadership, study characteristics of effective leadership and learn about the importance of personal development.
Grading: 30% special projects, 4% written homework, 8% reflection paper, 30% in-class presentation, 25% class participation, 3% other evaluation.

PA 1961W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: EDPA 1301W; Meets CLE req of Writing Intensive;
Instructor: Shultz,Joseph Brian
Description: This introductory level course presents leadership using a personal leadership perspective and framework. Students taking this course will have the opportunity to examine their own views on leadership, explore the differences between personal and positional leadership, study characteristics of effective leadership and learn about the importance of personal development.

PA 1961W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: EDPA 1301W; Meets CLE req of Writing Intensive;
Instructor: Watkins Soderlund,Mandi Mae
Description: Introduction to leadership theory, personal development, interpersonal relations, leadership at University of Minnesota. Personal assessment, written/verbal presentation, resume writing, electronic communication, goal setting, coping with group dynamics.

PA 1961W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: EDPA 1301W; Meets CLE req of Writing Intensive;
Instructor: Fink,Alexander J
Description: This introductory level course presents leadership using a personal leadership perspective and framework. Students taking this course will have the opportunity to examine their own views on leadership, explore the differences between personal and positional leadership, study characteristics of effective leadership and learn about the importance of personal development.

PA 1961W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: EDPA 1301W; Meets CLE req of Writing Intensive;
Instructor: Knudson,Laura J
Description: Introduction to leadership theory, personal development, interpersonal relations, leadership at University of Minnesota. Personal assessment, written/verbal presentation, resume writing, electronic communication, goal setting, coping with group dynamics.

PA 1961W Personal Leadership in the University
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: EDPA 1301W; Meets CLE req of Writing Intensive;
Instructor: Fink,Alexander J
Description: This introductory level course presents leadership using a personal leadership perspective and framework. Students taking this course will have the opportunity to examine their own views on leadership, explore the differences between personal and positional leadership, study characteristics of
effective leadership and learn about the importance of personal development.

**Grading:** 30% special projects, 4% written homework, 8% reflection paper, 30% in-class presentation, 25% class participation, 3% other evaluation.

**PA 1961W Personal Leadership in the University**

A-F only, 3 credit(s); Credit will not be granted if credit has been received for: EDPA 1301W; Meets CLE req of Writing Intensive;

**Instructor:** Hellstrom, David P

**Description:** This 1000 level course introduces leadership using a personal leadership perspective and framework. Students taking this course will have the opportunity to examine their own views on leadership, explore the differences between personal and positional leadership, study characteristics of leaders within the University of Minnesota and learn about the importance of personal development.

**Grading:** 30% special projects, 4% written homework, 8% reflection paper, 30% in-class presentation, 25% class participation, 3% other evaluation.

**PA 1961W Personal Leadership in the University**

A-F only, 3 credit(s); Credit will not be granted if credit has been received for: EDPA 1301W; Meets CLE req of Writing Intensive;

**Instructor:** Johnson, Brandon William

**Description:** This introductory level course presents leadership using a personal leadership perspective and framework. Students taking this course will have the opportunity to examine their own views on leadership, explore the differences between personal and positional leadership, study characteristics of effective leadership and learn about the importance of personal development.

**Grading:** 30% special projects, 4% written homework, 8% reflection paper, 30% in-class presentation, 25% class participation, 3% other evaluation.

**PA 3003 Nonprofit and Public Financial Analysis and Budgeting**

A-F only, 3 credit(s);

**Instructor:** Gunyou, John

**Description:** Public and non-profit organizations are expected to manage their finances well while providing quality services. Governments are increasingly pressured to do more with less, and nonprofit organizations are expected to do better in doing good. To meet these challenges, it is important that managers and employees of public and nonprofit organizations possess the fundamental skills of financial analysis and management. This is an introductory course in financial analysis and budgeting for public and nonprofit organizations. It is designed for students who have some background in financial analysis, and wish to gain a clearer understanding of nonprofit and public financial analysis and budgeting. PA 3003 is open to all students, and is one of the core courses of the Nonprofit/Public Track Management Minor in the Carlson School of Management. The primary objective of this course is to help students understand and use financial information available from financial documents, such as budgets and financial statements. Conceptual frameworks and analytical techniques will be emphasized and applied to analyze real-world financial problems through the use of case studies and practical exercises.

**PA 3961 Leadership, You, and Your Community**

A-F only, 3 credit(s); prerequisite [1961W or EdPA 1301W], [jr or sr]; Credit will not be granted if credit has been received for: EDPA 3302;

**Instructor:** Asmundson, Aaron R

**Description:** Leadership and leadership capacities from fundamental skills of leadership and social change, learn about leadership theory and core concepts of Public Achievement, and apply knowledge to practice utilizing the Public Achievement model. Particular attention is given to group leadership and the effectiveness of groups and organizations accomplishing change. There are a few aspects to the content of this course which make it unique when compared to traditional collegiate and leadership instruction: As a method of examining leadership capacities within a social change movement, this class will utilize the history, current status, and stories about the issue of poverty as a context. As the theme for the course, many portions of the class content and discussion will explore the issue of poverty. This method is meant as an example of public leadership happening within the intricacies of a social movement and issue. Another major content component of this course is the Public Achievement model. A little less than half of the assigned class days will be dedicated to working within smaller groups (encompassing about 1/3 of the class in each) on a Public Achievement project. For these projects, each of the instructors, in addition to a teaching assistant, will be assigned as a coach for one Public Achievement group. More information about Public Achievement is available in the subsequent pages of this syllabus.

**Style:** 10% Lecture, 5% Film/Video, 20% Discussion, 50% Small Group Activities, 10% Student Presentation, 5% Guest Speakers. The major portion of this class is the Public Achievement process.

**Grading:** 20% final exam, 20% reports/papers, 5% quizzes, 5% attendance, 10% journal, 35% in-class presentation, 5% class participation.

**Exam Format:** Final exam is a take-home written essay.

**PA 3961 Leadership, You, and Your Community**

A-F only, 3 credit(s); prerequisite [1961W or EdPA 1301W], [jr or sr]; Credit will not be granted if credit has been received for: EDPA 3302;

**Instructor:** Ve Lure Roholt, Christine Elizabeth

**Description:** Leadership and leadership capacities from fundamental skills of leadership and social change, learn about leadership theory and practice, group dynamics/behavior, applying knowledge.

**PA 3971 Leadership Minor Field Experience**

A-F only, 3 credit(s); prerequisite [3961W or EDPA 3302W] with grade of at least C; Credit will not be granted if credit has been received for: EDPA 3402;

**Instructor:** Ve Lure Roholt, Christine Elizabeth

**Description:** Student may contact the instructor or department for information.

**PA 4101 Nonprofit Management and Governance**

3 credit(s);

**Instructor:** Rojas, Allison Langell

**Description:** 25% Lecture, 50% Discussion, 25% Small Group Activities.

**Grading:** 40% reports/papers, 30% special projects, 20% quizzes, 10% class participation.

**PA 4200 Urban and Regional Planning**

3 credit(s);

**Instructor:** Becker, Carol

**Description:** Student may contact the instructor or department for information.

**PA 4490 Topics in Social Policy: Historical Methods in Policy**

1.5 credit(s); max credits 9, 3 completions allowed;

**Instructor:** Stone, Paul Clois

**Description:** Student may contact the instructor or department for information.

**PA 4490 Topics in Social Policy: Mkt approaches/Sustainability: Fair Trade & beyond**

3 credit(s), max credits 9, 3 completions allowed;

**Instructor:** Narvaez, Guillermo Enrique
### Description
This course examines a number of sustainability initiatives in the international trade of agricultural commodities, focusing on social and environmental aspects of the production and trade of coffee, cacao, and other commodities, particularly Fair Trade and organics.

### PA 4961W Leadership for Global Citizenship
- **Type:** A-F only, 3 credit(s); prerequisite 3971I or EdPa 3402; Credit will not be granted if credit has been received for: EdPa 4303W; Meets CLE req of Writing Intensive.
- **Instructor:** Atwood, Susan J.
- **Description:** This course, the capstone academic experience in the Undergraduate Leadership Minor sequence, is designed to focus student learning that has been developed in earlier leadership courses. Leadership theory, community building, social change, and interdisciplinary approaches to complex global issues will be the main components in this course. Students will be expected to demonstrate skill in analysis of pertinent literature, write with purpose and clarity, appreciate intense internships, and lead thoughtful group study. In this course, students will finalize portfolios and submit other scholarly products to demonstrate a mature understanding of personal and positional leadership in a changing global context.
- **Style:** 10% Lecture, 10% Film/Video, 40% Discussion, 25% Small Group Activities, 10% Student Presentation, 5% Guest Speakers. 11:15-12:30pm Tues and Thurs.
- **Grading:** 25% reports/papers, 25% special projects, 25% written homework, 10% attendance, 5% in-class presentation, 10% class participation.

### PA 5002 Introduction to Policy Analysis
- **Type:** A-F only, 1.5 credit(s); prerequisite Major in [public policy or science/technology/environmental policy] or instructor consent.
- **Instructor:** Hoenack, Stephen A.
- **Description:** Policy analysis is in many ways similar to the way medicine works. No matter how much a physician knows about medicine and the life sciences, what counts is to derive from the patient's symptoms a correct diagnosis and, if needed, treatment plan as a solution. Likewise in policy analysis, what counts is to derive from the symptoms of a poorly understood but troublesome situation a correct diagnosis in the form of a problem definition and, if needed, policy plan as a solution. The goal of this course is to learn how to do policy analysis by doing policy analysis over and over. We do this by starting with real world ill-defined situations that we are living in at the moment - for example, the current health care debate and other public policy issues. The objective is for you to learn when and how to apply analytical tools and concepts for different types of public policy problems.

### PA 5004 Introduction to Planning
- **Type:** A-F only, 3 credit(s); prerequisite Major in urban/regional planning or instructor consent; no credit for MPA students.
- **Instructor:** Allen, Ryan Patrick.
- **Description:** Challenges facing higher-level managers in public/nonprofit organizations in a mixed economy and democratic republic. Distinctive features of public/nonprofit management, skills necessary for effective management, manager's role as creator of public value. Lectures, case discussions.
- **Grading:** 60% reports/papers, 25% Small Group Activities.

### PA 5005 Introduction to Financial Analysis and Management
- **Type:** A-F only, 1.5 credit(s); prerequisite Development practice major or public policy major or public affairs major or grad liberal studies major or grad nonprofit mgmt cert or instructor consent.
- **Instructor:** Zhao, Zhirong Jerry.
- **Description:** Basic finance/accounting concepts/tools used in public/nonprofit organizations. Fund accounting, balance sheet and income statement analysis, cash flow analysis, and public/nonprofit sector budgeting processes. Lectures, discussions. Cases/examples from nonprofit and public sector organizations.

### PA 5006 Introduction to Policy Analysis
- **Type:** A-F only, 3 credit(s); prerequisite Major in [public policy or science/technology/environmental policy] or instructor consent; no credit for MPA students.
- **Instructor:** Bloomberg, Laura L.
- **Description:** This course examines a number of sustainability initiatives in the international trade of agricultural commodities, focusing on social and environmental aspects of the production and trade of coffee, cacao, and other commodities, particularly Fair Trade and organics. The primary learning objective of this course is how to obtain accurate financial information to make sound management decisions through the analysis of financial documents such as budgets and financial statements. The processes of producing such documents will be introduced but are not the focus of this course. Conceptual frameworks and analytical techniques will be emphasized and applied to analyze real-world financial problems. Lectures, discussions, and cases/examples from nonprofit and public sector organizations will be utilized.
- **Style:** 50% Lecture, 20% Discussion, 10% Small Group Activities, 10% Student Presentation, 10% Demonstration.
- **Grading:** 30% mid exam, 30% final exam, 25% reports/papers, 15% class participation.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
The course moves through the various levels of organizational life. We begin with your own skills and consider how to use those skills to work effectively in groups. We then consider the elements of organizations and the character of the larger environment which shapes what happens within them.

Throughout, you will come to see that organizations operate as systems within particular contexts that provide opportunities for and constrain effectiveness. This is a survey course, serving as a gateway into other classes offered in the Public and Nonprofit Leadership concentration at the Humphrey Institute. Specific learning objectives:

- Grapple with the potential and limitations of public/ non-profit management and leadership given the complexities of democracy and struggle for legitimate public action in the early 21st century;
- Improve public and non-profit organizational effectiveness through analysis using multiple perspectives; - Explore policy tools and organizational partnerships necessary for policy implementation;
- Enhance management and leadership skills including memo writing, team work, oral communication (including professional presentations), stakeholder analysis, and policy field analysis.

PA 5012 The Politics of Public Affairs
A-F only, 3 credit(s); prerequisite Major in public policy or [sci, tech, and environ policy] or instr consent;
Instructor: Cavanaugh, Patricia Kay
Description: Student may contact the instructor or department for information.

PA 5013 Law and Urban Land Use
A-F only, 1.5 credit(s); prerequisite Major in urban/regional planning or instr consent;
Instructor: Seillergren, David Clark
Description: Role of law in regulating/shaping urban development, land use, environmental quality, and local/regional governmental services. Interface between public/private sector.

PA 5021 Economics For Policy Analysis and Planning I
A-F only, 3 credit(s); prerequisite [Econ 1101 or equiv], Major in public policy or [sci, tech, and environ policy] or instr consent;
Instructor: Le, Thanh Trung
Description: Introduction to tools useful for public policy: intermediate microeconomics, macroeconomics, concepts of international trade.

PA 5021 Economics For Policy Analysis and Planning I
A-F only, 3 credit(s); prerequisite [Econ 1101 or equiv], Major in public policy or [sci, tech, and environ policy] or instr consent;
Instructor: Le, Thanh Trung
Description: Introduction to tools useful for public policy: intermediate microeconomics, macroeconomics, concepts of international trade.

PA 5021 Economics For Policy Analysis and Planning II: Macroeconomics
A-F only, 0 credit(s), max credits 4.5, 3 completions allowed; prerequisite [5021 or equiv], public policy major or instr consent;
Instructor: Ritter, Joe
Description: See syllabus. Second sentence of catalog description does not apply to this section.

PA 5022 Economics For Policy Analysis and Planning II: Cost Benefit Analysis
A-F only, 1.5 credit(s), max credits 4.5, 3 completions allowed; prerequisite [5021 or equiv], public policy major or instr consent;
Instructor: Temple, Judy
Description: This Fall 2010 section of 5022: Economics for Policy Analysis is focused on Cost-Benefit Analysis. PA 5021 (or concurrent enrollment) or intermediate microeconomics is a prerequisite. Please see the syllabus for additional information.

PA 5031 Empirical Analysis I
A-F only, 4 credit(s); prerequisite Major in dev practice or publ policy or [sci, tech, and environ policy] or urban/regional planning or instr consent;
Instructor: Le, Thanh Trung

PA 5031 Empirical Analysis I
A-F only, 4 credit(s); prerequisite Major in dev practice or publ policy or [sci, tech, and environ policy] or urban/regional planning or instr consent;
Instructor: Levison, Deborah
Style: 40% Lecture, 8% Discussion, 40% Laboratory, 12% Small Group Activities.
Grading: 25% final exam, 25% reports/papers, 45% quizzes, 5% class participation. Grading percentages are approximate. Class participation includes group preparation and participation.
Exam Format: Written, in-class.

PA 5031 Empirical Analysis I
A-F only, 4 credit(s); prerequisite Major in dev practice or publ policy or [sci, tech, and environ policy] or urban/regional planning or instr consent;
Instructor: Ritter, Joe

PA 5031 Empirical Analysis I
A-F only, 4 credit(s); prerequisite Major in dev practice or publ policy or [sci, tech, and environ policy] or urban/regional planning or instr consent;
Instructor: Cao, Jason

PA 5038 Analytics for Leaders I
A-F only, 2 credit(s); prerequisite Major in public affairs or instr consent;
Instructor: Le, Thanh Trung
Description: Student may contact the instructor or department for information.

PA 5038 Analytics for Leaders I
A-F only, 2 credit(s); prerequisite: major in public affairs or instructor consent
Instructor: Husbands Fealing,Kaye
Description: 

PA 5039 Analytics for Leaders II
A-F only, 2 credit(s); prerequisite: 5038;
Instructor: Le,Thanh Trung
Description: Student may contact the instructor or department for information.

PA 5041 Qualitative Methods for Policy Analysts
A-F only, 4 credit(s); prerequisite: grad or instructor consent;
Instructor: Cohen,Dara Kay
Description: Student may contact the instructor or department for information.

PA 5080 Capstone Preparation Workshop
S-N only, 1 credit(s); prerequisite: concurrent registration is required (or allowed) in 8081;
Instructor: Borton,Kimberly Joy
Description: 

PA 5101 Management and Governance of Nonprofit Organizations
3 credit(s); prerequisite: 5011 or 5941 or grad liberal studies major or grad nonprofit mgmt cert or instructor consent;
Instructor: Wirth-Davis,Michael Eric
Description: Theories, concepts, and real world examples of managerial challenges. Governance systems, strategic management practices, effect of funding environments, management of multiple constituencies. Types of nonprofits using economic/behavioral approaches.

PA 5104 Strategic Human Resource Management
A-F only, 3 credit(s); prerequisite: 5011 or 5941 or grad nonprofit mgmt cert or instructor consent;
Instructor: Kiedrowski,P. Jay
Description: Theory/practice of developing, utilizing, and aligning human resources to improve culture/outcomes of nonprofit/public organizations. HR strategy, individual diversity, leadership, selection, training, compensation, classification, performance appraisal, future HR practices.
Style: 40% Lecture, 30% Discussion, 20% Student Presentation, 10% Guest Speakers.
Grading: 45% reports/papers, 30% in-class presentation, 25% class participation.

PA 5190 Topics in Public and Nonprofit Leadership and Management: Public Service Redesign
1.5 credit(s), max credits 9, 3 completions allowed; prerequisite: 5011 or 5941 or grad nonprofit mgmt cert or instructor consent;
Instructor: Kiedrowski,P. Jay
Description: Since public policies are rarely self-administering, some policy analysts have turned their attention to considering whether, why and how well policies, once decided upon, are carried out. Are those who implement policies spontaneously determined to accomplish public purposes? Is oversight by legislators and citizens sufficient to orient public employees consistently to do their best? Might private organizations (perhaps with governmental oversight and funding) in some cases be able to accomplish public purposes better than are governmental organizations? These questions motivate this course in which we will construe policy analysis as the design and use of organizations and institutions in which people tend to advance public purposes. Students completing the course should have an understanding of a) the operation of the three main modes of public service delivery in the U.S.(competition, associations, and bureaus), b) market and non-market failure, and c) policy analysis as institutional design.

PA 5211 Land Use Planning
3 credit(s); prerequisite: grad student or instructor consent;
Instructor: Fan,Yingling
Description: To land use planners, the perennial question is how land use planning can be applied to create human settlement patterns that promote sustainable, equitable, and livable outcomes in metropolitan regions, cities, towns, and villages. Answers to this question are explored in this course with a focus on real-world planning process and implementation. Students will be exposed to a variety of methods and techniques available to planning practitioners to create and implement high-quality land use plans. Skills covered in this course include analysis and synthesis skills; oral, graphic, and written communication skills; and skills for working effectively as a member of a planning team and with community stakeholders. By the end of this course, students should be able to articulate a clear vision of what constitutes an effective local land use plan and be able to describe a range of possible plan formats. Students should be able to specify the components of a complete land use planning program, and know where a plan fits into such a program. Students should have developed a dependable sense of judgment for assessing the validity, effectiveness, feasibility, strengths and weaknesses of various land use plan-making methods and plan formats. More specifically, this course will help students learn how to formulate a land use plan in a professional manner and appropriate to the community context by actually making a plan for a small-size hypothetical city. Tasks to be mastered in this course include: 1. Describe and assess existing and emerging community conditions; 2. Formulate goals and objective towards a community vision statement; 3. Translate projections of economic and population changes into their land use implications for land, location, and community services; 4. Determine the suitability of land and locations for various land uses; 5. Apply computer technology to specific plan-making tasks such as map presentations, land suitability analyses, and the drawing of plans; 6. Design a future urban form that meets the community's objectives, accommodates the future population and economic releases, and incorporates community aspirations for a quality of life; and 7. Outline a development management program that helps bring such a future.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
PA 5212 Managing Urban Growth and Change  
3 credit(s); prereq Grad student or instr consent  
Instructor: Goetz, Edward Glenn  
Description: The practice of planning, promoting, and controlling economic growth/change in urban areas. Economic development tools available to state/local policymakers, historic context of their use in the United States, legal, social, and economic implementation constraints. Interactions among economic, social, and demographic trends.

PA 5231 Transit Planning and Management  
3 credit(s); prereq Grad student or instr consent  
Instructor: Cao, Jason  

PA 5253 Designing Planning and Participation Processes  
A-F only, 3 credit(s); prereq Major in urban/regional planning or instr consent  
Instructor: Slawik, Nora B  
Description:  

PA 5271 Geographic Information Systems: Applications in Planning and Policy Analysis  
3 credit(s); prereq Major in urban/regional planning or instr consent  
Instructor: Bolan, Richard Stuart  

PA 5271 Geographic Information Systems: Applications in Planning and Policy Analysis  
3 credit(s); prereq Major in urban/regional planning or instr consent  
Instructor: Fan, Yingling  
Description: Geographic Information Systems (GIS) is an increasingly growing field, providing spatial data management and analysis services to a broad range of business and public organizations. In 1999, US News identified the GIS occupation as one of the 721 hot jobs for the 21st century?, claiming that the number of GIS positions in local governments alone will rise from 20,000 to 36,000 by the year 2010. The use of GIS is inevitable in urban planning and public policy as both fields involve exploring location-related trends and issues. For instance, planners routinely conduct geo-spatial analyses to study residential clustering, to explore the spatial mismatch between jobs and workers, and to identify suitable land for urban transition, infill development, or environmental conservation. To public policy professionals, GIS facilitates spatial visualization of poverty, crime, pollution, and health patterns, allowing those who on the front line of public services to distribute tax money more fairly and to protect life and property more effectively. In simple words, GIS skills are a valuable asset in today's competitive job market. This course covers GIS basics (e.g., map projections, coordinate systems, spatial data manipulation & visualization, and geodatabase management) as well as advanced GIS applications (e.g., network analysis, raster & TIN models, socio-demographic analysis, 3-D analysis, hot-spot analysis, spatial interpolation, and other spatial statistics). It gives special attention to making GIS useful to urban planners and policy analysts. It is not intended to make students into GIS coding, spatial modeling or spatial statistics experts. Those interested in GIS-based career path should continue to take programming and database courses in Computer Science and advanced GIS offerings in the Department of Geography.

PA 5311 Program Evaluation  
3 credit(s); prereq Grad student or instr consent  
Instructor: Murphy, Mary Ellen S  
Description: Principal methods, primary applications of evaluation research as applied to policies/programs in health/human services, education, or the environment. Conducting evaluations. Becoming a critical consumer of studies.

PA 5401 Poverty, Inequality, and Public Policy  
3 credit(s); prereq Grad or instr consent  
Instructor: Hanratty, Maria J  
Description: Nature/extent of poverty/inequality in the United States; causes/consequences, impact of government programs/policies. Extent/causes of poverty/inequality in other developed/developing countries.

PA 5441 Education Policy and the State Legislature  
3 credit(s); prereq Grad or instr consent  
Instructor: Nathan, Joe  
Description: Want to learn how you can influence Minnesota's legislature, and help improve the world? Want to understand how the legislature makes decisions about education issues, elementary, secondary and higher ed? Want to meet with legislators, reporters, lobbyists? Want to discuss how the Internet can be used to help influence legislators? If so, this is a good class for you. Classroom debates, discussions and role plays play a key part. There also is a field trip to state legislature. Students will help write a guide for others on what people do to get things done at the legislature. Target audience: mature undergraduates, community members, graduate students  
Style: 20% Lecture, 45% Discussion. 20% conversations; 10% role plays. 5% field trip  
Grading: 30% final exam, 50% reports/papers, 15% in-class presentation, 5% class participation.  
Exam Format: Take-home final exam

PA 5451 Immigrant Health Issues  
A-F only, 3-4 credit(s), 1 completion allowed; prereq Grad student or instr consent  
Credit will not be granted if credit has been received for: PUBH 6281;  
Instructor: Fennelly, Katherine  
Description:  

PA 5490 Topics in Social Policy: Social Policy Analysis in the Legislative Arena  
1.5 credit(s), max credits 9, 3 completions allowed; prereq Grad student or instr consent  
Instructor: Jefferys, Marcie  
Description: In this half-semester course, students will practice many of the skills necessary to be successful working in or around the legislative process. Students will use techniques used by legislative analysts and others to take a policy solution from its identification to legislative passage. Class speakers and readings will expose students to the variety of roles in which policy analysts can work and some of the issues involved in doing analysis in a political environment. Assignments will be a combination of hands-on skills practice and personal exploration of the current state of policy analysis.  
Style: 30% Lecture, 20% Small Group Activities, 20% Student Presentation, 30% Guest Speakers  
Grading: 30% reports/papers, 10% class participation. Bill draft (all parts): 45%. Fact presentation: 15%.

PA 5490 Topics in Social Policy: Early Childhood and Public Policy  
3 credit(s), max credits 9, 3 completions allowed; prereq Grad student or instr consent  
Instructor: Sliawik, Nora B  
Description: If you want to learn directly from legislators, early education professionals, economists, lobbyists and other social scientists about state, federal and international policies affecting young children and their families this class is essential. We will explore readings and expert speaker presentations on family, community and institutional roles in promoting children's social, cognitive and emotional development and their acquisition of language and pre-literacy skills. This course illuminates the gaps between the science of early childhood development and how public policies support young children and their caregivers.
Classroom discussions will focus on innovative public policies and financing affecting young children and their physical and mental health care, poverty influences, quality child care, economics, special needs and workforce issues. Graduate students in the areas of early childhood and public policy as well as community members with experience in the early childhood field are the intended audience. This class is the cornerstone of the Early Childhood Policy Certificate program, a postbaccalaureate sequence intended to develop individuals' capacity to apply research-informed knowledge of early development to federal and state policy affecting children up to age 8.

**Style:** 20% Lecture, 20% Discussion, 20% Small Group Activities, 10% Student Presentation, 20% Guest Speakers.

Experts in the areas related to young children speak regularly on kindergarten readiness, statistical preschool studies, legislation, poverty, economics and workforce issues.

**Grading:** 40% reports/papers, 10% special projects, 30% written homework, 10% attendance, 10% class participation. Class attendance also weighs into the final grade if the student misses more than two of the weekly classes.

**Description:**

Student may contact the instructor or department for information.

**Instructor:** Temple, Judy

**Prerequisites:**

- Graduate student or instructor consent.

**Course Information:**

1.5 credit(s), max credits 9, 3 completions allowed; prereq Graduate student or instructor consent.

**Course Title:**

PA 5490 Topics in Social Policy: Economics and Education Policy

**Description:**

This course focuses on the history of and development of economic development activities. Alternative strategies for organizing/initiating economic development projects and their roles in community development, trade policy, health, education, gender, the environment.

**Instructor:** Friedemann-Sanchez, Greta

**Prerequisites:**

- Graduate student or instructor consent.

**Course Information:**

3 credit(s); prereq Graduate student or instructor consent.

**Course Title:**

PA 5501 Theories and Policies of Development

**Description:**

Theories of community economic development are examined to understand what augments or diminishes bargaining power.

**Instructor:** Christenson, Michael Paul

**Prerequisites:**

- Grad student or instructor consent.

**Course Information:**

3 credit(s); prereq Grad student or instr consent.

**Course Title:**

PA 5511 Community Economic Development

**Description:**

This course is organized as a seminar and introduction to research: 70% of class time will be discussion of assigned readings and current events affecting the status of women. 30% of class time will be devoted to research projects and papers. The class will be divided into three groups for the purpose of organizing a research question or problem that is relevant to the topic. Each group will work on a research project that will be presented at the end of the course.

**Instructor:** Nelson, Kris S

**Prerequisites:**

- Graduate student or instructor consent.

**Course Information:**

3 credit(s); max credits 9, 3 completions allowed; prereq Graduate student or instructor consent.

**Course Title:**

PA 5590 Topics in Economic and Community Development: Econ Competitiveness: Firms/Clusters/Econ Dev

**Description:**

This course explores the history of economic development and addresses competitiveness at multiple levels in nations, sub-national units such as states or provinces, particular clusters, and neighboring countries. The course is concerned not only with government policy, but also with the roles that firms, industry, associations, universities, and other institutions play in competitiveness. In modern competition, each of these institutions has an important and evolving role in economic development. Moreover, the process of creating and sustaining an economic strategy for a nation, state or region is a daunting challenge. The course explores not only theory and policy but also the organizational structures, institutional frameworks, and change processes required for sustained improvements in competitiveness. (See syllabus for additional information.)

**Instructor:** Greta Friedemann-Sanchez

**Prerequisites:**

- Graduate student or instructor consent.

**Course Information:**

3 credit(s); max credits 9, 3 completions allowed; prereq Grad student or instr consent.

**Course Title:**

PA 5601 Survey of Women, Law, and Public Policy in the United States

**Description:**

This course is focused on the history of and development of public policies historically helps us to break down the category women by race, class, sexual orientation, and other mutually constituting categories such as age, rural/urban, parental status, etc. We will consider the causes and consequences of public policies on women's issues; emphasis will be placed on placing public policy debates and issues in a historical context. Consequently, we will explore in-depth three policy issues: employment, reproductive rights, and welfare reform. Moreover, this course will consider how feminists engage in legal advocacy and how feminist historians are beginning to analyze the rhetoric of choice. Grades are based on class participation, a reading journal, components of a research paper? annotated bibliography and literature review, and a research paper. Class Time: The course is organized as a seminar and an introduction to research: 70% of class time will be devoted to research projects and papers. The class will be divided into three groups for the purpose of organizing a research question or problem that is relevant to the topic. Each group will work on a research project that will be presented at the end of the course.

**Instructor:** Nelson, Kris S

**Prerequisites:**

- Graduate student or instructor consent.

**Course Information:**

3 credit(s); max credits 9, 3 completions allowed; prereq Grad student or instructor consent.

**Course Title:**

PA 5690 Topics in Women and Public Policy: Domestic Violence and Sexual Assault

**Description:**

This course focuses on the history of and contemporary thinking about activism, social change, public
polices, and legal remedies directed toward sexual assault and domestic violence in the US, particularly from the point of view of feminist perspectives. The course deals, for example, with how notions of personal responsibility and assumptions about the roles contribute to attitudes toward stranger sexual assault and intimate partner violence. Readings in the course offer insight into early links between slavery and rape, between the temperance movement and domestic violence, and between views of child abuse and sexual abuse, as well as the increasing roles of psychiatry and social work in addressing sexual violence. The course traces how these historical foundations and cultural attitudes help determine contemporary responses by legal officials, and the course covers such diverse topics as the impact of HIV/AIDS on rape survivors; sexual abuse of men in prison; incest; child abuse; and sex offender treatment. Students read a memoir (Alice Sebold's Lucky) about surviving sexual assault and view a film (The Accused) as well as reading historical and analytical texts. Students will visit the domestic violence court in Hennepin County, and the course ends with a close look at a project by the president of William Mitchell Law School on sexual predator laws, such as civil commitment and community notification, in terms of their effectiveness, feminist perspectives, and impact on Constitutional rights. Other speakers include the executive director of the non-profit courtroom monitoring organization, WATCH, and the head of the Minneapolis Police Department Sex Crimes Unit.

Style: 5% Film/Video, 75% Discussion, 10% Small Group Activities, 5% Field Trips, 5% Guest Speakers. Grading: 25% mid exam, 30% final exam, 5% reports/papers, 10% quizzes, 20% reflection paper, 10% class participation. Exams are essay take-home exams.

PA 5711 Science and Technology Policy
3 credit(s); prereq Grad student or instr consent
Instructor: Kuzma, Jennifer
Description: This course will provide an overview of public policies and issues involving or affected by science and technology (S&T). The breadth of the class precludes a comprehensive coverage of any one subject, but through the themes, subthemes, and issue-based case studies, students will gain a broad understanding of S&T policy, in addition to basic concepts of policy analysis. Overarching themes will include history and evolution of S&T policy; the current system and the interactions and conflicts within and surrounding it; the relationships among citizens, experts, organizations and cultures; R&D support infrastructure and effects on economies and society; and responsible governance of S&T. Various challenges and opportunities for science and technology will be considered within a social context. Sub-themes for the course include national and international funding of R&D; S&T in development; intellectual property and its impacts; contemporary institutional roles; public engagement and participatory processes; ethical and cultural frameworks for S&T policy; capacity building in developing countries; health and well-being of societies and ecosystems as related to S&T; and security in the context of S&T policy. The first half of the course will focus on the general themes and sub-themes, and the second half will focus on particular S&T policy topics to illustrate these themes (genetically engineered organisms, nanotechnology, emerging medical biotechnology, ecology and biodiversity, global health, national biodefense and security). Style: 30% Lecture, 25% Discussion, 25% Small Group Activities, 10% Student Presentation, 10% Guest Speakers. Grading: 40% reports/papers, 20% written homework, 20% in-class presentation, 20% class participation.

PA 5721 Energy and Environmental Policy
3 credit(s); prereq Grad student or instr consent
Instructor: Wilson, Elizabeth Joan
Description: Impact of energy production/consumption choices on environmental quality, sustainable development, and other economic/social goals. Emphasizes public policy choices for energy/environment, linkages between them.

PA 5722 Environmental and Resource Economics Policy
3 credit(s); prereq [Intermediate microeconomics, intermediate policy analysis, grad student] or instr consent
Instructor: Easter, K. William
Description: The course emphasizes the economics of natural resource use over time, with natural resource scarcity or adequacy, environmental economics and mechanisms for pollution control and their implications for public policy. It will also include study of the use of economic analysis and benefit cost analysis in natural resource and environmental quality decisions made by the public and private sectors. This course is designed to service two groups: (1) seniors and graduate students in Applied Economics, Public Affairs, Geography, Natural Resources, etc., for whom it is a terminal course, and (2) Applied Economics or Economics students who plan to take ApEcB601 and/or 8602. The course is organized around two lectures per week. However, discussion and questions are encouraged. Readings will be assigned that are on reserve.

Style: 85% Lecture. 15% Discussion. Grading: 35% mid exam, 35% final exam, 20% reports/papers, 10% problem solving.

Exam Format: Short essay.

PA 5802 Global Economic Policy
3 credit(s); prereq Major in [public affairs or public policy] or instr consent
Instructor: Kudrie, Robert T
Description: The global economy poses many challenges to nation states and to the aspirations of various national and transnational social groups. This course looks at some of those challenges and the associated policy responses. Only a few of those responses involve formally agreed international rules, and most of those rules lack specific enforcement mechanisms. This is not surprising because most of the policy challenges emerged gradually over time, and nation-states have attempted to deal with them while maintaining as much national prerogative as possible. Much of the story of the governance of the global economy can therefore be seen as mixtures of information sharing and light coordination. Stronger governance such as the World Trade Organization and the International Monetary Fund are exceptions. The course will explore the economic logic of globalization and national policy objectives. It will deal with specific policies and institutions related to international trade (including the WTO and regional pacts such as NAFTA); international finance (including the International Monetary Fund); global aspects of resources and the environment; immigration and emigration; and development (including the UN and the World Bank).

PA 5880 Topics in Foreign Policy and International Affairs: Mkt approaches/Sustainability: Fair Trade & beyond
3 credit(s), max credits 40, 8 completions allowed; prereq Grad student or instr consent
Instructor: Narvaez, Guillermo Enrique
Description: This course examines a number of sustainability initiatives in the international trade of agricultural commodities, focusing on social and environmental aspects of the production and trade of coffee, cacao and other commodities, particularly Fair Trade and organics.

PA 5910 Developing Your Public Service Career
S-N only, 1 credit(s); prereq Major in [public affairs or public policy or urban/regional planning or [science, technology/environmental policy]] or instr consent
Instructor: Schuman, Lynne Roberta
Description: This course provides Humphrey students with the knowledge and analytic tools to manage their own career development. Students look at the changing nature of public work and public service career options. They analyze and document their individual interests, skills and abilities and create a career exploration plan. Finally, they meet professionals from a variety of public service careers in a series of panel discussions.

Style: 20% Lecture, 20% Discussion, 20% Small Group Activities, 40% Guest Speakers. Grading: 50% reports/papers, 50% reflection paper.

PA 5920 Skills Workshop: Community Organizing for Effective Public Policy

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
PA 5920 Skills Workshop: Boards Service Practicum
1 credit(s), max credits 12, 12 completions allowed; prereq
Grad student or instr consent;
Instructor: Stone,Melissa M
Description: This is a year-long course for students who sit on nonprofit boards of directors or a board committee. The class meets once a month for two hours and discusses challenges of board work, meets with local governance experts, and explores the research and practice literature about effective board governance.

PA 5920 Skills Workshop: Historical Methods for Policy and Analysis
1.5 credit(s), max credits 12, 12 completions allowed; prereq
Grad student or instr consent;
Instructor: Stone,Paul Clois
Description: This course is an introduction to basic, on-site archival research and reporting. It rests on the assumption that adequate promotion of policy as well as analysis of issues pertaining to policy debate can only be understood in a historical context. It is the instructor's opinion that policy debate far too frequently rests on an a-historical or even anti-historical assumption on the part of those involved. Furthermore, the all too frequent assumption that all contextual information is available instantly "on line" is simply wrong and in serious policy debate equally dangerous when issues fundamentally involve planning the future. Libraries, especially special collections libraries, institutional archives, public records offices and historical societies should be familiar places to policy makers. For the best policy makers and analysts they always have been. The course is patterned on language immersion courses in that students will spend several days over the course of two weekends in at least four different kinds of special collections libraries and archives. We will examine the kinds of materials one would find in these places, discussing finding aids and research techniques, and most importantly, interacting with librarians, curators and collection specialists.

PA 5941 Leadership for the Common Good
4 credit(s); prereq Major in [development practice or public affairs] or instr consent;
Instructor: DeCramer,Gary M
Description: DRAFT Syllabus Spring 09
PA 5941 Leadership for the Common Good Wed. 5:45 pm 9:05 pm
Instructor Gary DeCramer Room 241 Humphrey Institute gdecramer@umn.edu
office: 612-625-3458 home: 651-868-5535 hours: 4:00 to 5:15 Wednesdays or by appointment Course Goals Understand theories, tools, and strategies of leadership. Understand how policy entrepreneurs develop and manage ideas for achieving the common good. Build a learning community. Assist learners in developing leadership strategies for their own work. Course Design This course is a participatory seminar designed to engage students in study, thought, discussion and reflection on eight capabilities of leadership: Leadership in Context, Personal Leadership, Team Leadership, Integrative Leadership, Organizational Leadership, Visionary Leadership, Political Leadership, Ethical Leadership, and Policy Entrepreneurship. In order to ensure that the course helps learners develop strategies for their own leadership work, everyone develops his or own leadership case throughout the course. Learners are assigned to a study group that typically meets for the hour before each class, or at another time convenient to the members. The groups provide opportunities to: o Review and discuss readings o Focus on learners: leadership cases, using exercises and other assignments o Build learning relationships o Prepare for class sessions Credit Requirements and Grading for A-F Participation -- Attend class and study groups; contribute to discussion. Post bio sketch on web; post study group norms. Turn in evaluations of your study group members; participation. (20%) Reflection Leader: Each person will serve as a reflection leader. (5%) Leadership Case and Class Memos a. Initial leadership case statement. * If instructor requires revisions, a new draft responding to their comments must be posted later. See course website and grid for further guidance. (3%). b. Outline for full leadership case analysis. See course website for further guidance. (7%) c. Class Memo (30%). These readings could be selected so that they contribute to the full leadership case analysis, and can count as outside readings.

PA 5941 Leadership for the Common Good
4 credit(s); prereq Major in [development practice or public affairs] or instr consent;
Instructor: Sandfor,Jodi R.
Description: DRAFT Syllabus Spring 09
PA 5941 Leadership for the Common Good Wed. 5:45 pm 9:05 pm
Instructor Gary DeCramer Room 241 Humphrey Institute gdecramer@umn.edu
office: 612-625-3458 home: 651-868-5535 hours: 4:00 to 5:15 Wednesdays or by appointment Course Goals Understand theories, tools, and strategies of leadership. Understand how policy entrepreneurs develop and manage ideas for achieving the common good. Build a learning community. Assist learners in developing leadership strategies for their own work. Course Design This course is a participatory seminar designed to engage students in study, thought, discussion and reflection on eight capabilities of leadership: Leadership in Context, Personal Leadership, Team Leadership, Integrative Leadership, Organizational Leadership, Visionary Leadership, Political Leadership, Ethical Leadership, and Policy Entrepreneurship. In order to ensure that the course helps learners develop strategies for their own leadership work, everyone develops his or own leadership case throughout the course. Learners are assigned to a study group that typically meets for the hour before each class, or at another time convenient to the members. The groups provide opportunities to: o Review and discuss readings o Focus on learners: leadership cases, using exercises and other assignments o Build learning relationships o Prepare for class sessions Credit Requirements and Grading for A-F Participation -- Attend class and study groups; contribute to discussion. Post bio sketch on web; post study group norms. Turn in evaluations of your study group members; participation. (20%) Reflection Leader: Each person will serve as a reflection leader. (5%) Leadership Case and Class Memos a. Initial leadership case statement. * If instructor requires revisions, a new draft responding to their comments must be posted later. See course website and grid for further guidance. (3%). b. Outline for full leadership case analysis. See course website for further guidance. (7%) c. Class Memo (30%). These readings could be selected so that they contribute to the full leadership case analysis, and can count as outside readings.

PA 5990 Topics: Public Affairs--General Topics: Engaging the Public in Policy & Planning
3 credit(s), max credits 2, 2 completions allowed; prereq
Grad student or instr consent;
Instructor: Benasutti,Merrie A
Description: Engaging the Public in Policy and Planning (PA 5990 / PA 8081) was proposed by and developed in consultation with Humphrey Institute students who were interested in community based research and committed to engaging Humphrey Institute and other University of Minnesota students in community-based initiatives to strengthen the Cedar Riverside
This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 completions allowed; prereq
instructor consent;
Instructor: Swackhammer, Deborah L
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 completions allowed; prereq
instructor consent;
Instructor: Hanratty, Maria J
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 completions allowed; prereq
instructor consent;
Instructor: Myers Jr, Samuel L
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 completions allowed; prereq
instructor consent;
Instructor: Goetz, Edward Glenn
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 completions allowed; prereq
instructor consent;
Instructor: Kleiner, Morris M
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 completions allowed; prereq
instructor consent;
Instructor: Eustis, Nancy N
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 completions allowed; prereq
instructor consent;
Instructor: Stone, Paul Clois
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 completions allowed; prereq
instructor consent;
Instructor: Kudrle, Robert T
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 completions allowed; prereq
instructor consent;
Instructor: Assaad, Ragui A
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 completions allowed; prereq
instructor consent;
Instructor: Hanratty, Maria J
Description: Student may contact the instructor or department for information.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
PA 8991 Independent Study  
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent;  
Instructor: Cao, Jason  
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study  
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent;  
Instructor: Sandfort, Jodi R.  
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study  
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent;  
Instructor: Atwood, J. Brian  
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study  
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent;  
Instructor: Kiedrowski, P. Jay  
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study  
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent;  
Instructor: Slottorback, Carissa Schively  
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study  
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent;  
Instructor: Wilson, Elizabeth Joan  
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study  
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent;  
Instructor: Temple, Judy  
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study  
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent;  
Instructor: Zhao, Zhirong Jerry  
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study  
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent;  
Instructor: Soss, Joe  
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study  
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent;  
Instructor: Allen, Ryan Patrick  
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study  
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent;  
Instructor: Husbands Fealing, Kaye  
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study  
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent;  
Instructor: Fan, Yingling  
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study  
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent;  
Instructor: Lindsey, Greg H  
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study  
1-3 credit(s), max credits 6, 6 completions allowed; prereq instr consent;  
Instructor: Cohen, Dara Kay  
Description: Student may contact the instructor or department for information.

Public Health  
A-302 Mayo (Box 1977)

PUBH 1003 Alcohol and College Life  
OPT No Aud, 1 credit(s); prereq Fr or soph or PSEO;  
Instructor: Gardner, Jolynn  
Description: Provides college students with factual information about how alcohol and other drugs affect college life. The course highlights stories and information pertinent to all students, regardless of whether or not they choose to drink. It supports students who do not drink, reinforces safety skills among students who do drink, and counters dangerous myths and behaviors. It emphasizes personal prevention strategies and responsible decision-making. It presents students with tips about how to navigate college life and be successful, including time management, getting involved on campus, meeting new people, etc. Students are encouraged to think about how the course topics apply to their own lives.  
Description: Students are encouraged to think about how the course topics apply to their own lives. Alcohol and College Life is entirely web-based, but it is not an independent study class. There are specific due dates for quizzes and assignments. Make sure you are aware of these dates so you do not miss them (see the course schedule section of the syllabus). Information about how to access the course web site and get started is also available in the course syllabus. All class communications will be sent to students' official U of M email accounts only. Students should check their U of M email accounts frequently throughout the semester. Students should contact the instructor, Jolynn Gardner (jgardner@umn.edu) for those who need them.  
Students must have access to a computer and the Internet and should have basic computing skills. Alcohol and College Life is entirely web-based, but it is not an independent study class. There are specific due dates for quizzes and assignments. Make sure you are aware of these dates so you do not miss them (see the course schedule section of the syllabus). Information about how to access the course web site and get started is also available in the course syllabus.

PUBH 1005 Sleeps, Eats, and Exercises  
1 credit(s); prereq Undergrad student or PSEO student;  
Instructor: Kjolhaug, Jerri Rae  
Description: <html><body><p>Alcohol and College Life</p></body></html>
PUBH 3003 Fundamentals of Alcohol and Drug Abuse

Credit (s): Credit will not be granted if credit has been received for: PUBH 3004.

Instructor: Farley, Dana Mark

Description: This web-based course consists of 17 lessons on the scientific, socio-cultural, and attitudinal aspects of alcohol and other drug abuse problems. Special emphasis is placed on the incidence and prevalence of drug and alcohol abuse, as well as on high-risk populations, prevention issues, and interventions.

This course is intended primarily for teachers to meet licensure requirements. Prerequisites: Undergrad in agriculture, human development, health education, or rehabilitation counseling. Foundations of health, kinesiology/pre-PE, technology or music education; Addiction Studies student. Credit will not be granted if credit has been received for: PUBH 6003, PubH 5023, PubH 5003, PubH 3033, PubH 3005, PubH 3004, PubH 3003, PubH 3002.

Style: 100% Web Based. This is NOT an independent study course; there are due dates.

Grading: 30% reports/papers, 32% quizzes, 38% written homework. This is a web-based course. All quizzes, assignments, and the final paper are submitted online.

PUBH 3010 Public Health Approaches to HIV/AIDS

Credit (s): Credit will not be granted if credit has been received for: PUBH 6010.

Instructor: Horvath, Keith J.

Description: The purpose of this undergraduate level course is to learn more about HIV/AIDS, with an emphasis on primary prevention (preventing HIV infection in those who are uninfected), secondary prevention (preventing development of HIV disease in those who are HIV-infected), and tertiary prevention (preventing morbidity and mortality in those with HIV disease).

A significant focus of this course will be on community responses to HIV/AIDS, including social, medical, and political. This focus acknowledges the unique role of the community in structuring our response to HIV/AIDS historically and today.

PUBH 3040 Dying and Death in Contemporary Society: Implications for Intervention

Credit (s): Credit will not be granted if credit has been received for: PUBH 6040.

Instructor: Gardner, Jolynn

Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Basic background information will be presented on concepts, attitudes, ethics and lifestyle management in relation to dying, death, grief and bereavement. Emphasis will be placed on the intervention and educational aspects of the above topics for community health and helping professionals and educators.

Credit will not be granted if credit has been received for: PUBH 6040. Students should consult with Steve Thompson (thomp030@umn.edu) if a permission number is needed.

Style: 100% Web Based. Grading: 20% mid exam, 25% final exam. -1 self-introduction (5%) -1 short essay assignment (7%-10) -1 longer essay assignment (45%)
This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onetop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
Instructor: Laska, Melissa Nelson
Description: This course covers nutrition topics of contemporary interest. Concepts/facts about science of human nutrition are discussed in relation to personal/community nutrition problems/concerns. This is an applied introductory course with labs.
Style: 30% Lecture, 15% Discussion, 40% Laboratory, 15% Guest Speakers. The course is structured as a weekly seminar with about an hour of lecture and an hour of lab work and small group activities. Discussion topics will be integrated throughout the course.
Grading: 30% mid exam, 30% final exam, 25% special projects, 15% laboratory evaluation.

PUBH 6003 Fundamentals of Alcohol and Drug Abuse for Teacher Education
1 credit(s); prereq Master of education student or instr consent; Credit will not be granted if credit has been received for: PUBH 3003;
Instructor: Farley, Dana Mark
Description: This web-based course consists of 17 lessons on the scientific, socio-cultural, and attitudinal aspects of alcohol and other drug abuse problems. Special emphasis is placed on the incidence and prevalence of drug and alcohol abuse, as well as on high-risk populations, prevention issues, and interventions. The course is intended primarily for teachers to meet licensure requirements. Prerequisites: M.Ed. student or Addiction Studies student. Credit will not be granted if credit has been received for: PUBH 6003, PUBH 5023, PUBH 5003, PUBH 3033, PUBH 3032, PUBH 3005, PUBH 3004, PUBH 3003, PUBH 3002.
Style: 100% Web Based. This is NOT an independent study course; there are due dates.
Grading: 30% reports/papers, 32% quizzes, 38% written homework. This is a web-based course. All quizzes, assignments, and the final paper are submitted online.

PUBH 6010 Public Health Approaches to HIV/AIDS
3 credit(s); prereq Grad student or professional school student or instr consent; Credit will not be granted if credit has been received for: PUBH 3010;
Instructor: Horvath, Keith J.
Description: Student may contact the instructor or department for information.

PUBH 6020 Fundamentals of Social and Behavioral Science
A-F only, 3 credit(s), max credits 6; prereq Public health [MPH or MHA or certificate] student or health journalism MA major or instr consent;
Instructor: Nelson, Toben F
Description: Student may contact the instructor or department for information.

PUBH 6025 e-Public Health: Online Intervention Design
3 credit(s);
Instructor: Rosser, B. R. Simon
Description: Student may contact the instructor or department for information.

PUBH 6035 Applied Research Methods
3 credit(s); prereq [6414 or 6450 or equiv], [6034 or 6806 or equiv], [CHE or PubH Nutr] major or instr consent; 6420 recommended;
Instructor: Henrikus, Deborah Jane
Description: The purpose of this course is to teach basic research skills and concepts needed to plan, conduct, and analyze data from a research project. Skills including performing literature searches; questionnaire development; scale construction; item analysis; data coding, entry and analysis; and report writing will be taught. Through the semester, students will develop a research question, devise and implement a brief survey to address that question, analyze their survey data using STATA statistical software, and write a report. Most of the class and lab activities will focus on the steps involved in completing this project. Students will also be given a chance to develop their STATA data management and analysis skills using existing datasets.
Style: 50% Lecture, 5% Discussion, 25% Laboratory, 15% Small Group Activities, 5% Student Presentation.
Grading: 40% reports/papers, 48% written homework, 5% in-class presentation, 7% class participation.

PUBH 6050 Community Health Theory and Practice I
3 credit(s); prereq Community health education major or instr consent;
Instructor: Sherwood, Nancy Elizabe
Description: Student may contact the instructor or department for information.

PUBH 6066 Building Communities, Increasing Health: Preparing for Community Health Work
2 credit(s); prereq Public health student or grad student or instr consent;
Instructor: Axtell, Sara Ann
Description: Student may contact the instructor or department for information.

PUBH 6078 Public Health Policy as a Prevention Strategy
2 credit(s); prereq 2nd yr MPH or public health MS student or [Epi, Biostats, Env Hlth, HSRR] Concurrent registration is required (or allowed) in A PhD student or instr consent;
Instructor: Forster, Jean
Description: Student may contact the instructor or department for information.

PUBH 6101 Environmental Health
A-F only, 2 credit(s); prereq Public health [MPH or MHA or certificate] student or instr consent;
Instructor: Toscano Jr, William A
Description: This course explores the interaction between the environment and humans. The environment covers all aspects of the environment including physical, psychosocial, nutritional and chemical environment. How health affects human health is discussed. Principles of environmental health relating to macro and micro environments and products consumed or used by people. Global climate change and its effects on human health are discussed.
Style: 50% Lecture, 10% Small Group Activities, 30% Student Presentation, 10% Guest Speakers.
Grading: 50% reports/papers, 10% attendance, 25% in-class presentation, 15% class participation.

PUBH 6103 Exposure to Environmental Hazards
A-F only, 2 credit(s);
Instructor: Raynor, Peter Cameron
Description: Student may contact the instructor or department for information.

PUBH 6104 Environmental Health Effects: Introduction to Toxicology
A-F only, 2 credit(s); prereq Basic science coursework; undergrad coursework in [biology, chemistry, biochemistry] recommended; Credit will not be granted if credit has been received for: PUBH 3104;
Instructor: Wattenberg, Elizabeth Vaughn
Description: Student may contact the instructor or department for information.

PUBH 6115 Worker Protection Law
1 credit(s); prereq credit will not be granted if credit received for: 5110;
Instructor: Austin, Michael L
Description: How do we protect workers? We will focus on the role of government in protecting rights of citizens. Labor movement history will serve as a starting point for a discussion of modern systems for protecting workers from unsafe work places and compensating them for injuries that do occur. Law will be reviewed that protects individuals against class based discrimination and creates a “right” to work. II. Learning Objectives At the end of this course, students should be able to: “Discuss the history of worker protection law “Describe the role of government in protecting the safety and well being of citizens “Discuss legal issues underlying several worker protection
policies *Discuss the legal basis for compensation for injuries to health and property, and its application to worker protection
*Demonstrate techniques of persuasive legal research, writing and oral presentation III. Methods of Instruction and Work

Expectations

Students are encouraged to introduce issues of current interest from the media or from their workplace for discussion. These issues will be incorporated into the curriculum when appropriate. Through lecture and discussion, we will review public law that focuses on the role of government in protecting the safety and well being of citizens. Review of labor movement history will serve as a starting point for a discussion of modern systems for protecting workers from unsafe work places and compensating them for injuries that occur. In addition, we will review law that protects individuals against class based discrimination and creates a "frigh? to work. Each week students will write a short paragraph or one page outline that answers a question based on the reading assignment. Each student will conduct legal research and write five pages on the legal aspects of an environmental or public health problem. A rough draft must be submitted for review with the instructor before a final draft is submitted. The paper must advocate a public policy that might solve the problem, and include at least 10 primary references. Each student will prepare and present a 6-8 minute persuasive speech in class based on the legal research and writing project. Students will critique each other. Students will work in groups and prepare a classroom presentation regarding a public policy issue. Groups will research issues, identify stakeholders and advocate solutions. Presentations will be made from the perspectives of the various stakeholders. An outline of research materials with at least 10 primary references must be submitted.

Style: 70% Lecture, 25% Discussion, 5% Student Presentation.

Grading: 50% reports/papers, 30% written homework, 20% in-class presentation.

**PUBH 6131 Working in Global Health**

2 credit(s);

Instructor: Berthold, Peter

Description: The content covers 4 main themes that are woven, explicitly and implicitly, throughout the presentations. 1. Health Around the World. A current description of global health trends; globalization and its effects on human health; the demographic shift and growth of chronic disease prevalence in developing countries, emerging infectious disease threats; local ?global? health issues among immigrant populations. 2. Health, Politics, and Policies. Relationships between economic development; war and health; women?s health and economic development; food distribution and nutrition as a political issue; global aid and its level of long-term impact. 3. Health of the Planet. Trends in global environmental health; and effects of natural and man-made coming disasters. 4. Health and Culture. The role of culture in health issues; the importance of a culturally acceptable involvement in health and health care, and importance of traditional healers (complementary and alternative medicine).

Grading: 40% final exam, 30% reports/papers, 30% class presentation.

Exam Format: Multiple choice

**PUBH 6132 Air, Water, and Health**

A-F only, 2 credit(s);

Instructor: Simcik, Matt

Description: Student may contact the instructor or department for information.

**PUBH 6164 Toxicological Analysis**

A-F only, 2 credit(s); prereq Enrollment in toxicology concentration of Environmental Health PhD program, instr consent;

Instructor: Peterson, Lisa Ann

Description: Student may contact the instructor or department for information.

**PUBH 6170 Introduction to Occupational Health and Safety**

3 credit(s); prereq Environmental health major or instr consent; Credit will not be granted if credit has been received for PUBH 5170.

Instructor: Nachreiner, Nancy Martha

Description: Student may contact the instructor or department for information.

**PUBH 6176 Hazardous Materials and Waste Management**

2 credit(s); prereq [6170, [courses in [chemistry, organic chemistry] or equiv]] or instr consent;

Instructor: Brosseau, Lisa M

Description: Student may contact the instructor or department for information.

**PUBH 6190 Environmental Chemistry**

3 credit(s); prereq One course each in [gen chem, org chem]

or instr consent;

Instructor: Simcik, Matt

Description: Student may contact the instructor or department for information.

**PUBH 6200 Topics: Foundations of Interprofessional Communication and Collaboration**

Interprofessional Communication and Collaboration

S-N only, 1 credit(s), max credits 80, 20 completions allowed; prereq [MHA or MPH or MS] student;

Instructor: Nerney, Mary Ellen

Description: Student may contact the instructor or department for information.

**PUBH 6301 Fundamentals of Clinical Research**

3 credit(s); prereq Clinical Research major or instr consent;

Credit will not be granted if credit has been received for:

PUBH 6305;

Instructor: Luepker MD, Russell V

Description: This course is intended to provide a foundation for the more advanced study that is necessary to become an accomplished clinical research investigator. This course will review the concepts that underlie successful clinical research design, implementation, and reporting. This course will also expose students to the resources and opportunities available to support clinical research at the academic health center.

Style: 40% Lecture, 10% Discussion, 50% Guest Speakers.

Grading: 20% mid exam, 30% final exam, 50% written homework.

**PUBH 6320 Fundamentals of Epidemiology**

A-F only, 3 credit(s); prereq AHC or health journalism student or instr consent;

Instructor: Punyko, Judy

Description: Student may contact the instructor or department for information.

**PUBH 6320 Fundamentals of Epidemiology**

A-F only, 3 credit(s); prereq AHC or health journalism student or instr consent;

Instructor: Lazovich, DeAnn

Description: Student may contact the instructor or department for information.

**PUBH 6325 Data Processing with PC-SAS**

1 credit(s); prereq [Grad-level biostatistics course, [grad student or PUBH student]] or instr consent;

Instructor: Oakes, J Michael

Description: Student may contact the instructor or department for information.

**PUBH 6333 Principles of Human Behavior I**

A-F only, 2 credit(s); prereq Epi PhD student or instr consent;

Instructor: Nelson, Toben F

Description: Student may contact the instructor or department for information.

**PUBH 6336 Advanced Seminar in Infectious Disease Epidemiology**

S-N only, 1 credit(s), max credits 2; prereq [6330 or 6341], 6385, instr consent;

Instructor: Ehresmann, Kristen Rosdahl

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
Description: This course is required for all Epidemiology MPH students. Upon completion of this course, students will be able to:
A) Describe the research hypotheses that are appropriate for cross-sectional, case-control, and cohort studies; B) Describe the rationale underlying the major techniques used to analyze data from epidemiologic studies; C) Know how to interpret results from various analyses of epidemiologic data; D) Explain how interactions, confounding and dose-response relations among variables are examined; E) Use basic SAS procedures to analyze data from epidemiologic studies.

Style: 80% Lecture, 10% Discussion, 10% Small Group Activities. Six sessions are devoted to reviewing homework problems. These are class discussion format, followed by pertinent in-class problem sets, to be done either in small groups or individually depending on the student's learning style.

Grading: 25% mid exam, 30% final exam, 20% written homework, 25% additional semester exams.

Exam Format: All three semester exams are closed book with formulae provided.

PUBH 6348 Writing Research Grants
S-N only, 2 credit(s); prereq [[6341 or 8300], [6450 or 7401], [Epidemiology PhD or Clinical Research MS student]] or instr consent ;
Instructor: Pereira PhD, Mark A
Description: Student may contact the instructor or department for information.

PUBH 6384 Ecological Methods
A-F only, 3 credit(s); max credits 6; prereq AHC student or instr consent ;
Instructor: Schreiner, Pamela Jean
Description: Ecological Methods is a combination of a subject matter science and research methodology. Ecological Methods I focuses on the latter component. The course introduces the study designs applied to human populations, including randomized trials and four types of observational studies (cohort, case-control, cross-sectional, ecological). Because cause-and-effect relations are at the heart of epidemiologic research, numerous related topics are taught in Ecological Methods I including causation, inference, bias, and effect modification.

Style: 70% Lecture, 30% Discussion, 10% Small Group Activities.
Grading: 48% mid exam, 28% final exam, 24% written homework. Grading Basis: Homework (24%); 8 homework assignments (3 pts ea) Exam 1 (24%); First 1/3 the course Exam 2 (24%); Cumulative with emphasis on material covered in middle 1/3 Exam 3 (28%); Cumulative with emphasis on material covered in final 1

PUBH 6343 Epidemiologic Methods I
A-F only, 3 credit(s), max credits 6; prereq AHC student or instr consent ;
Instructor: Kulasingam, Shalini L
Description: Description: Epidemiologic Methods I is a combination of a subject matter science and research methodology. Ecological Methods I focuses on the latter component. The course introduces the study designs applied to human populations, including randomized trials and four types of observational studies (cohort, case-control, cross-sectional, ecological). Because cause-and-effect relations are at the heart of epidemiologic research, numerous related topics are taught in Epidemiologic Methods I including causation, inference, bias, and effect modification.

Style: 70% Lecture, 20% Discussion, 10% Small Group Activities.
Grading: 48% mid exam, 28% final exam, 24% written homework. 8 homework assignments (3 pts ea) Exam 1 (24%); First 1/3 the course Exam 2 (24%); Cumulative with emphasis on material covered in middle 1/3 Exam 3 (28%); Cumulative with emphasis on material covered in final 1

PUBH 6343 Epidemiologic Methods III
4 credit(s); prereq [6342, 6451] with a grade of at least B- or instr consent ;
Instructor: Schreiner, Pamela Jean
Description: Epidemiologic Methods III provides instruction in the analysis and interpretation of data from various epidemiological study designs. SAS is used to demonstrate epidemiological and statistical concepts in data analysis. The course is required for all M.P.H. students in Epidemiology. Prerequisites include PubH 6342 (Epidemiologic Methods II) and PubH 6452 (Biostatistics II). Permission of the instructor is needed for substitutions or exemptions. Upon completion of this course, students will be able to: 1) Describe the research hypotheses that are appropriate for cross-sectional studies, case-control studies, and cohort studies; 2) Describe the rationale underlying the major techniques used to analyze data from epidemiological studies; 3) Know how to interpret data from various analyses of epidemiological data; 4) Explain how interactions, confounders and dose-response relations among variables are examined; and 5) Use basic SAS procedures to analyze data from epidemiological studies.

Style: 100% Lecture.
Grading: 50% mid exam, 30% final exam, 20% written homework. Exams are similar in content and structure to homework assignments and in-class exercises.

Exam Format: In-class exams with formulae provided.

PUBH 6343 Epidemiologic Methods III
genetic and genomic variation, study designs and methods used in gene discovery and gene characterization, gene-environment interaction, epigenetics, genetic testing in public health, and the ethical, social, and legal implications of genetic testing and genomic research. Diseases of primary focus will include cancers, obesity, diabetes, and cardiovascular disease, but will also include coverage of other diseases of interest to the class. A collaborative learning environment is encouraged, in which the students as well as the instructor actively contribute their experience and knowledge to the class.

**Style:** 40% Lecture, 20% Discussion, 20% Student Presentation, 20% Guest Speakers.

**Grading:** 25% mid exam, 25% reports/papers, 25% written homework, 10% attendance, 15% in-class presentation.

**PUBH 6386 Public Health Aspects of Cardiovascular Disease**

2 credit(s); prereq [6330 or 6341], 6450, epidemiology major or instr consent

**Instructor:** Folsom,Aaron R

**Description:** This course covers the epidemiology and prevention of cardiovascular disease (CVD). Focus is on epidemiological methods related to CVD, established and novel risk factors, national data sources, approaches to and national recommendations for CVD prevention. Controversies in CVD epidemiology and prevention are covered. The course is designed for epidemiology majors and those in related health fields. Basic epidemiology and statistics courses are pre-requisites. Learning objectives are 1) to understand the descriptive epidemiology of CVD and CVD risk factors, (2) to be able to interpret CVD epidemiologic data, (3) to become familiar with methods used in this field, and (4) to understand individual and population approaches to CVD prevention.

**Style:** 75% Lecture, 15% Discussion, 3% Small Group Activities, 6% Guest Speakers, 1% Web Based. Discussion includes critiquing articles.

**Grading:** 10% mid exam, 40% final exam, 45% written homework, 5% in-class presentation.

**Exam Format:** Exams usually are take-home essay writing.

**PUBH 6389 Nutritional Epidemiology**

2 credit(s); prereq [[6330 or 6330 or 6341], [Epidemiology MPH or Public Health Nutrition MPH or Epidemiology PhD student]] or instr consent

**Instructor:** Harnack,Lisa Joan

**Description:** The course is designed to provide the student with familiarity with the design, conduct, analysis, and interpretation of epidemiologic studies related to nutrition. At the conclusion of this course students will be able to: 1.) Select the most appropriate dietary intake assessment method for a given research question, epidemiologic study design, and study population; 2.) Identify the strengths and limitations of each dietary intake assessment methodology currently available, and understand the implications of the limitations of each method on study results; 3.) Select the most appropriate epidemiologic study designs for various nutrition-related research questions by taking into account the strengths and limitations of various designs in relation to specific nutrition research questions; and 4.) Describe the data analysis and interpretation issues of special importance in nutritional epidemiology studies.

**Style:** 75% Lecture, 10% Discussion, 15% Small Group Activities.

**Grading:** 40% final exam, 20% special projects, 40% written homework.

**Exam Format:** Take home open book exam

**PUBH 6390 Topics: Epidemiology: Epidemiologic Methods III:**

Lab 1 credit(s), max credits 80, 20 completions allowed

**Instructor:** Schreiner,Pamela Jean

**Description:** Student may contact the instructor or department for information.

**PUBH 6414 Biostatistical Methods I**

A-F only, 3 credit(s); prereq Public Health [MPH or certificate] student or [environmental health [MS or PhD]] or health journalism MA or health informatics [MS or PhD]

**Instructor:** Sainfort,Francois

**Description:** Student may contact the instructor or department for information.

**PUBH 6414 Biostatistical Methods I**

A-F only, 3 credit(s); prereq Public Health [MPH or certificate] student or [environmental health [MS or PhD] or health journalism MA or health informatics [MS or PhD]]

**Instructor:** Brearley,Ann M.

**Description:** Student may contact the instructor or department for information.

**PUBH 6420 Introduction to SAS Programming**

1 credit(s); prereq Health sciences grad student or instr consent

**Instructor:** Brandt,Gregory Alan

**Description:** Student may contact the instructor or department for information.

**PUBH 6450 Biostatistics I**

A-F only, 4 credit(s); prereq [College-level algebra, health sciences grad student] or instr consent; Credit will not be granted if credit has been received for: PUBH 6414;

**Instructor:** Telke,Susan Elizabe

**Description:** Student may contact the instructor or department for information.

**PUBH 6450 Biostatistics I**

A-F only, 4 credit(s); prereq [College-level algebra, health sciences grad student] or instr consent; Credit will not be granted if credit has been received for: PUBH 6414;

**Instructor:** Mugglin,Andrew Scott

**Description:** Student may contact the instructor or department for information.

**PUBH 6470 SAS Procedures and Data Analysis**

3 credit(s); prereq [6450, 6451] or [7405, 7406] or [Stat 5101, Stat 5102];

**Instructor:** Thomas,William

**Description:** PUBH 6470 introduces students with a background in statistics to programming, graphics, and data analysis using SAS. The course concentrates on nuts-and-bolts programming using PC-SAS, data editing and reformating, as well as statistical applications. Applications will include: general linear models, nonparametric smoothing, logistic regression, proportional hazards regression, plus bootstrap methods, and methods for repeated measurements of continuous and categorical outcomes. Homework exercises involve both data cleaning and data analysis.

**Style:** 70% Lecture, 30% Laboratory.

**Grading:** 30% mid exam, 30% final exam, 40% written homework.

**PUBH 6535 Healthcare Services Accounting**

A-F only, 3 credit(s); prereq AHC student or instr consent; experience with spreadsheets such as Excel or Lotus recommended;

**Instructor:** Haim,Barry

**Description:** Student may contact the instructor or department for information.

**PUBH 6541 Statistics for Health Management Decision Making**

3 credit(s); prereq Health care admin student or instr consent;

**Instructor:** Abraham,Jean Marie

**Description:** Student may contact the instructor or department for information.

**PUBH 6541 Statistics for Health Management Decision Making**

3 credit(s); prereq Health care admin student or instr consent;

**Instructor:** Sainfort,Francois

**Description:** Student may contact the instructor or department for information.
Description: Student may contact the instructor or department for information.

PUBH 6542 Management of Health Care Organizations
A-F only, 3 credit(s); prereq Health care admin student;
Instructor: Begun, James Warren
Description: Student may contact the instructor or department for information.

PUBH 6547 Health Care Human Resources Management
A-F only, 2 credit(s); prereq Health care admin student or public health admin student or instr consent;
Instructor: Langen, Patrick J
Description: Student may contact the instructor or department for information.

PUBH 6553 Health Care Management Ethics
A-F only, 1 credit(s), max credits 2; prereq Public health MPH or MHA or certificate student or instr consent;
Instructor: McCullough, Jeffrey S
Description: Student may contact the instructor or department for information.

PUBH 6555 Topics in Health Economics
A-F only, 2 credit(s);
Instructor: Town, Robert James
Description: Student may contact the instructor or department for information.

PUBH 6556 Health and Health Systems
A-F only, 2 credit(s);
Instructor: Christianson, Jon B
Description: Student may contact the instructor or department for information.

PUBH 6558 Health Finance II
3 credit(s); prereq [[Health care admin or PUBH admin-policy] student, familiarity with computerized spread-sheets]] or instr consent;
Instructor: Christianson, Jon B
Description: Student may contact the instructor or department for information.

PUBH 6558 Health Finance II
3 credit(s); prereq [[Health care admin or PUBH admin-policy] student, familiarity with computerized spread-sheets]] or instr consent;
Instructor: Halm, Barry
Description: Student may contact the instructor or department for information.

PUBH 6560 Operations Research and Quality in Health Care
A-F only, 2 credit(s); prereq Grad-level statistics/management coursework;
Instructor: Potthoff, Sandra Jean
Description: Student may contact the instructor or department for information.

PUBH 6562 Information Technology in Health Care
2 credit(s);
Instructor: Parente, Stephen T
Description: Student may contact the instructor or department for information.

PUBH 6563 Integrated Delivery Systems
A-F only, 2 credit(s); prereq Hlth care admin student or instr consent;
Instructor: Zismer, Daniel Kevin
Description: Student may contact the instructor or department for information.

PUBH 6564 Private Purchasers of Health Care: Roles of Employers and Health Plans in U.S. Health Care System
A-F only, 2 credit(s); prereq MHA or MBA or HSRP or PHA student or instr consent;
Instructor: Christianson, Jon B
Description: Student may contact the instructor or department for information.

PUBH 6565 Health Care Delivery Design and Innovation
A-F only, 2 credit(s), max credits 4; prereq Public health MPH or MHA certificate student or instr consent;
Instructor: Armbruster, Ryan Richard
Description: Student may contact the instructor or department for information.

PUBH 6568 Interprofessional Teamwork in Health Care
2 credit(s); prereq [Public health MPH or MHA or certificate student] or [health services research, policy/admin] MS student or instr consent;
Instructor: Zismer, Daniel Kevin
Description: Student may contact the instructor or department for information.

PUBH 6569 Healthcare Policy
A-F only, 1 credit(s), max credits 2; prereq Public health MPH or MHA or certificate student or instr consent;
Instructor: Christianson, Jon B
Description: Student may contact the instructor or department for information.

PUBH 6570 Topics: Health Care Administration: Managing HC Orgs: International Perspectives
2 credit(s), max credits 20, 5 completions allowed; prereq instr consent;
Instructor: Zismer, Daniel Kevin
Description: This course seeks to provide graduate students the opportunity to consider the application of modern leadership and management principles and practices to health sectors across the globe, and to stimulate consideration for "Careers of Impact on the Global Stage." The course will offer an overview of health sectors in developing and developed economies (there are about 200 nations in the World, and all are dissatisfied with the performance of their health sectors—all are in various stages of health sector reform). Profiles and patterns of reform in a nation's health sector will be assessed and made available on-line for reference in the course. The role of leadership in the design and management of enhanced health sector performance will be considered in the context of macro social, political, cultural and economic aspects. While the course may be relevant for careers of impact in both developed and developing economies, there will be priority attention focused on the challenges of leadership for health gain and health care in developing countries. The instructors for this course share 40 years of experience in developing and managing healthcare systems around the world.

PUBH 6600 Topics: Maternal and Child Health: Global Reproductive Health
2 credit(s), max credits 20, 20 completions allowed;
Instructor: Hellerstedt, Wendy L
Description: The purpose of this course is to examine reproductive health issues, programs, services, and policies in developed and developing countries. The course content will emphasize social, economic, environmental, behavioral, and political factors that affect family planning, reproductive health, fertility, and pregnancy outcome. The course will have three areas of focus: (1) interventions and programs to improve
reproductive health; (2) the measurement and interpretation of reproductive indices (within nations and globally); and (3) policies that affect reproductive health (with an emphasis on global policies and trends). At the completion of this course, the student should be able to: o Analyze a reproductive health problem relative to the public health implications and develop outlines for policy or programmatic initiatives. For example, if asked what type of contraceptive services should be available to adolescents, the student should be able to provide a cogent discussion of the specific reproductive risks of adolescents in a specific region of the world. o Identify the major governmental and non-governmental agencies who make global health policy. o Describe the elements that contribute to effective interventions to improve the reproductive health of adolescents, men, and women and how effective interventions will vary according to political, social, cultural, and economic realities across the globe. o Describe the goals of programs to promote safe motherhood in developed and developing countries. o Understand the terminology and vocabulary used in the reproductive literature and how the meaning and importance of terms vary internationally. o Identify major data sources for global health that allow cross-country comparisons. o Understand how data collection and measurement problems vary internationally for select indicators and how these issues affect the validity (and comparability) of some reproductive health indicators. o Appreciate the ramifications of social conditions, public policy and global financing on reproductive programs in developed and developing countries. o Identify trends in reproductive health relative to economic, demographic, and environmental trends in various regions of the world and how trends in one region of the world may affect reproductive health in other areas. o Appreciate the complexity of local contexts (e.g., villages, towns, districts, cities, provinces, countries) and the difficulty of applying nationally and globally defined interventions and policies.

**Style:** 100% Web Based.

**Grading:** 25% reports/papers, 40% quizzes, 20% class participation, 15% other evaluation.

**PUBH 6613 Children and Youth With Special Health Care Needs**

2 credit(s); prereq Graduate-level student in [AHC programs or education or social work or psychology];

**Instructor:** Patterson, Joan

**Description:** Student may contact the instructor or department for information.

**PUBH 6617 Practical Methods for Secondary Data Analysis**

3 credit(s); prereq Public health [MPH or certificate] student or epidemiology PhD major or instr consent;

**Instructor:** Oakes, J Michael

**Description:** Student may contact the instructor or department for information.

**PUBH 6627 Sexuality Education: Criteria, Curricula, and Controversies**

1 credit(s); prereq Prefer public health student or grad student or professional in public health or education;

**Instructor:** Brett, Lynn Muenzenberger

**Description:** Student may contact the instructor or department for information.

**PUBH 6630 Foundations of Maternal and Child Health Leadership**

3 credit(s); prereq Public Health MCH major or instr consent;

**Instructor:** Oberg MD, Charles N

**Description:** 1. First, it is designed to orient you to a maternal and child public health perspective for assessing and meeting the health needs of women, children, adolescents and families. The class will examine historical and current principles, programs, policies, and practices related to these populations. Historically, MCH has focused on children and their mothers; however, today MCH emphasizes women’s health beyond their reproductive and parenting roles, and also emphasizes families (and other family members such as fathers and grandparents) as the critical social context influencing children’s health and development. 2. Second, it is designed to promote MCH leadership through the integration of core MCH content, critical competencies and mentorship.

**Style:** 60% Lecture, 20% Discussion, 20% Small Group Activities.

**Grading:** 80% reports/papers, 20% class participation.

**PUBH 6700 Foundations of Public Health**

**Instructor:** Virnig, Beth A.

**Description:** In this course, we will examine the history, values, contexts, principles, frameworks, and organization of delivery systems that are a foundation for public health administration and practice. We will focus on the administrative processes and strategies that drive and support achieving results efficiently, effectively, and responsibly. We will explore policy and programming challenges and opportunities in strategic public health issues. Grounded in theory and concepts, we will incorporate the core competencies and skills for public health professionals and focus on developing the problem solving and decision making skills through case studies and debates.

**Style:** 40% Lecture, 40% Discussion, 10% Small Group Activities, 10% Student Presentation.

**PUBH 6717 Decision Analysis for Health Care**

2 credit(s);

**Instructor:** Kuntz, Karen M

**Description:** Influenza immunization rates among non-elderly individuals with high-risk medical conditions are below target levels in the United States. How can we optimize vaccine delivery for these individuals, particularly during periods of national influenza vaccine shortages? There is disagreement among physicians, administrators, and board members about how this year’s capital should be allocated to competing strategic initiatives. In which projects should the hospital system invest its capital? A bioterrorism attack would require rapid deployment of medical and pharmaceutical supplies to exposed individuals. What are the optimal strategies for pre-attack stockpiling and post-attack distribution and dispensing of supplies? Decisions in health care and public health at the individual, organizational, and policy levels involve tradeoffs among competing objectives, uncertainty about outcomes, incomplete information, and different attitudes among stakeholders towards risk and reward. In this course you will learn quantitative methods for structuring, analyzing and solving decision problems using decision trees and decision tree software, with a focus on the process of decision making aimed at providing insights into the situation. Upon completion of the course, you will be equipped to apply these methods to a range of practical problems you will face in your clinical, managerial or research career.

**Style:** 80% Lecture, 20% Discussion.

**Grading:** 80% mid exam, 50% final exam, 10% written homework, 10% class participation.

**Exam Format:** Take-home exams, problem solving.

**PUBH 6724 The Health Care System and Public Health**

3 credit(s); prereq Public health or grad student or instr consent;

**Instructor:** Blewett, Lynn Ann

**Description:** Student may contact the instructor or department for information.

**PUBH 6727 Health Leadership and Effecting Change**

2 credit(s); prereq Public health MPH or MHA or certificate student or [health services research, policy/admin] MS student or instr consent;

**Instructor:** Mosser MD, Gordon

**Description:** PUBH 6727, Health Leadership and Effecting Change, is designed primarily for students who aim to be leaders in healthcare organizations, especially delivery organizations such as hospitals, medical groups, long-term care facilities, and integrated delivery systems. Students learn core concepts of leadership, including principles of organizational change. They use a self-assessment instrument to understand their own

**Style:** 80% reports/papers, 20% class participation.
current strengths and shortcomings as a leader and to plan for their professional development. The readings are books and articles from the general leadership literature, which are applied in discussion of health care settings. Small teams of students carry out projects to learn how change has been accomplished in real world health care settings. Their findings are reported orally to the class and in writing.

**PUBH 6741 Ethics in Public Health: Professional Practice and Policy**
A-F only, 1 credit(s); prerequisite Public health [MPH or MHA or certificate] student or environmental health [MS or PhD] major or instr consent; Instructor: Turner, Leigh
Description: Student may contact the instructor or department for information.

**PUBH 6742 Ethics in Public Health: Research and Policy**
A-F only, 1 credit(s); prerequisite Public health [MPH or MHA or certificate] student or [clinical research MS or Environmental health [MS or PhD] or epidemiology PhD or [health services research, policy/admin [MS or PhD]] major or instr consent; Instructor: Turner, Leigh
Description: Student may contact the instructor or department for information.

**PUBH 6751 Principles of Management in Health Services Organizations**
A-F only, 2 credit(s); prerequisite [Public health MPH or MHA or certificate] student or [environmental health MS or PhD] student or dentistry MS student or instr consent; Instructor: Riley, William J
Description: Student may contact the instructor or department for information.

**PUBH 6755 Planning and Budgeting for Public Health**
OPT No Aud, 2 credit(s); prerequisite Academic Hlth Ctr grad student or instr consent; Instructor: Barry JD, Anne M
Description: Student may contact the instructor or department for information.

**PUBH 6765 Continuous Quality Improvement: Methods and Techniques**
3 credit(s); Instructor: Riley, William J
Description: Student may contact the instructor or department for information.

**PUBH 6801 Health and Human Rights**
2 credit(s); prerequisite Grad student or professional student or instr consent; Instructor: Allison, Kirk Charles
Description: Student may contact the instructor or department for information.

**PUBH 6802 Managing Electronic Health Information**
3 credit(s); prerequisite Familiarity with [Windows-based environment, Microsoft Word, Excel, Access, Web browser, graphical package, data collection/analysis projects, internet] or instr consent; Instructor: Wholey, Douglas R
Description: Student may contact the instructor or department for information.

**PUBH 6804 Community Mental Health**
A-F only, 2 credit(s); Instructor: McAlpine, Donna D
Description: Student may contact the instructor or department for information.

**PUBH 6806 Principles of Public Health Research**
2 credit(s); prerequisite Pub hlt or grad or professional school student or instr consent; Instructor: Call, Ph.D, Kathleen Thiede
Description: Student may contact the instructor or department for information.

**PUBH 6810 Survey Research Methods**
OPT No Aud, 3 credit(s); Instructor: Constantine, Ph.D, Melissa L
Description: Student may contact the instructor or department for information.

**PUBH 6811 Health Disparities Research: Measures, Methods, and Data**
OPT No Aud, 2 credit(s); prerequisite [Grad or professional] student, introductory research methods course or instr consent; Instructor: Johnson, Pamela Jo
Description: Student may contact the instructor or department for information.

**PUBH 6901 Foundations of Public Health Nutrition Leadership**
2 credit(s); prerequisite Public health nutrition major or instr consent; Instructor: Stang, Jamie Sue
Description: This course provides an overview of the fundamental roles, responsibilities and competencies needed to succeed in the field of public health nutrition. It is designed for students in the public health nutrition MPH program. During this course, you will build skills in essential public health nutrition functions such as communications, cultural competence, professional self-assessment and public policy and advocacy. Further, this course will enable you to articulate a personal leadership style and philosophy related to public health nutrition practice.
Style: 55% Lecture, 10% Discussion, 30% Small Group Activities.
Grading: 55% special projects, 10% attendance, 15% reflection paper, 20% in-class presentation.

**PUBH 6902 Maternal, Infant, and Preschool Nutrition**
2 credit(s); prerequisite 3xxx nutrition course or equiv or instr consent; Instructor: Stang, Jamie Sue
Description: This 2-credit course provides an overview of nutrition issues affecting pregnant and postpartum women, females of reproductive age, infants and children through five years of age. The course integrates public health practice and policy recommendations with evidence-based clinical practice guidelines to provide a comprehensive view of maternal and infant nutrition issues seen by practitioners in community settings. Students will complete case studies or projects related to topics discussed in class and will participate in a group program planning and mock grant review activity.
Style: 80% Lecture, 10% Film/Video, 10% Small Group Activities.
Grading: 45% reports/papers, 45% special projects, 10% class participation.

**PUBH 6903 Child and Adolescent Nutrition**
2 credit(s); prerequisite Grad student or professional school student or instr consent; Instructor: Story, Ph.D, Mary T
Description: This 2-credit course provides an overview of nutrition issues affecting children and adolescents through age 17 years. The course integrates public health practice and policy recommendations with evidence-based clinical practice guidelines to provide a comprehensive view of child and adolescent nutrition issues seen by practitioners in community settings. Students will complete case studies or projects related to topics discussed in class and will participate in a group program planning and mock grant review activity.
Style: 80% Lecture, 10% Film/Video, 10% Small Group Activities.
Grading: 45% reports/papers, 45% special projects, 10% class participation.
Description: This course focuses on the major public health nutrition-related issues and concerns of school aged children and adolescents (5-21 years of age) and addresses factors influencing eating behaviors and physical activity patterns, nutrition education, intervention strategies, and programs and policies to promote healthy eating and physical activity. Special attention is placed on child and adolescent obesity. The course is designed for health science and other graduate-level students.

PUBH 6905 Nutrition for Public Health Promotion and Disease Prevention
2 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: PUBH 3905;
Instructor: Laska,Melissa Nelson
Description: This course covers nutrition topics of contemporary interest. Concepts/facts about science of human nutrition are discussed in relation to personal/community nutrition problems/concerns. This is an applied introductory course with labs.
Style: 25% Lecture, 15% Discussion, 40% Laboratory, 5% Student Presentation, 15% Guest Speakers. The course is structured as a weekly seminar with about an hour of lecture and an hour of lab work and small group activities. Discussion topics will be integrated throughout the course.
Grading: 22% mid exam, 23% final exam, 20% reports/papers, 15% special projects, 5% in-class presentation, 15% laboratory evaluation.

PUBH 7096 Field Experience: Community Health Education
S-N only, 1-6 credit(s), max credits 6; prereq CHE major, instr consent;
Instructor: Horvath,Keith J.
Description: Student may contact the instructor or department for information.

PUBH 7193 Directed Study: Environmental Health
OPT No Aud, 1-4 credit(s), max credits 20, 20 completions allowed; prereq instr consent;
Instructor: Brosseau, Lisa M
Description: Student may contact the instructor or department for information.

PUBH 7194 Master's Project: Environmental Health
S-N only, 1-5 credit(s), max credits 25, 5 completions allowed; prereq Environmental health major, instr consent;
Instructor: Gerberich PhD,Susan G
Description: Student may contact the instructor or department for information.

PUBH 7196 Field Experience: Environmental Health
S-N only, 1-5 credit(s), max credits 5, 5 completions allowed; prereq Environmental health major, instr consent;
Instructor: Simcik, Matt
Description: Student may contact the instructor or department for information.

PUBH 7280 Public Health Advocacy Through Professional Organizations
S-N only, 0.5-2 credit(s), max credits 2; prereq Public health practice MPH major or instr consent;
Instructor: Hart MD,James F
Description: Student may contact the instructor or department for information.

PUBH 7291 Independent Study: Public Health Practice
S-N only, 0.5-4 credit(s), max credits 20, 20 completions allowed; prereq Public health practice MPH major, instr consent;
Instructor: Hart MD,James F
Description: Student may contact the instructor or department for information.

PUBH 7294 Master's Project: Public Health Practice
S-N only, 0.5-4 credit(s), max credits 12, 3 completions allowed; prereq Public health practice MPH major, instr consent;
Instructor: Lifson, Alan Raymond
Description: Student may contact the instructor or department for information.

PUBH 7294 Master's Project: Public Health Practice
S-N only, 0.5-4 credit(s), max credits 12, 3 completions allowed; prereq Public health practice MPH major, instr consent;
Instructor: Schmidt, Peggy Lynn
Description: Student may contact the instructor or department for information.

PUBH 7294 Master's Project: Public Health Practice
S-N only, 0.5-4 credit(s), max credits 12, 3 completions allowed; prereq Public health practice MPH major, instr consent;
Instructor: Hueston DVM, William D.
Description: Student may contact the instructor or department for information.

PUBH 7296 Field Experience: Public Health Practice
S-N only, 0.5-4 credit(s), max credits 12, 4 completions allowed; prereq Public health practice MPH major, instr consent; Credit will not be granted if credit has been received for: CVM 6516;
Instructor: Sreevatsan,Srinand
Description: Student may contact the instructor or department for information.

PUBH 7296 Field Experience: Public Health Practice
S-N only, 0.5-4 credit(s), max credits 12, 4 completions allowed; prereq Public health practice MPH major, instr consent; Credit will not be granted if credit has been received for: CVM 6516;
Instructor: Schmidt,Peggy Lynn
Description: Student may contact the instructor or department for information.

PUBH 7296 Field Experience: Public Health Practice
S-N only, 0.5-4 credit(s), max credits 12, 4 completions allowed; prereq Public health practice MPH major, instr consent; Credit will not be granted if credit has been received for: CVM 6516;
Instructor: Schmidt,Peggy Lynn
Description: Student may contact the instructor or department for information.

PUBH 7296 Field Experience: Public Health Practice
S-N only, 0.5-4 credit(s), max credits 12, 4 completions allowed; prereq Public health practice MPH major, instr consent; Credit will not be granted if credit has been received for: CVM 6516;
Instructor: Hueston DVM, William D.
Description: Student may contact the instructor or department for information.

PUBH 7296 Field Experience: Public Health Practice
S-N only, 0.5-4 credit(s), max credits 12, 4 completions allowed; prereq Public health practice MPH major, instr consent; Credit will not be granted if credit has been received for: CVM 6516;
Instructor: Berthold, Peter
Description: Student may contact the instructor or department for information.

PUBH 7296 Field Experience: Public Health Practice
S-N only, 0.5-4 credit(s), max credits 12, 4 completions allowed; prereq Public health practice MPH major, instr consent; Credit will not be granted if credit has been received for: CVM 6516;
Instructor: Hueston DVM, William D.
Description: Student may contact the instructor or department for information.

PUBH 7296 Field Experience: Public Health Practice
S-N only, 0.5-4 credit(s), max credits 12, 4 completions allowed; prereq Public health practice MPH major, instr consent; Credit will not be granted if credit has been received for: CVM 6516;
Instructor: Berthold, Peter
Description: Student may contact the instructor or department for information.

PUBH 7296 Field Experience: Public Health Practice
S-N only, 0.5-4 credit(s), max credits 12, 4 completions allowed; prereq Public health practice MPH major, instr consent; Credit will not be granted if credit has been received for: CVM 6516;
Instructor: Berthold, Peter
Description: Student may contact the instructor or department for information.
PUBH 7401 Fundamentals of Biostatistical Inference
4 credit(s); prereq Background in calculus; intended for PhD students in public hlhs and other hlhs sci who need rigorous approach to probability/statistics and statistical inference with applications to research in public hlh;
Instructor: Maclerose,Richard F
Description: Student may contact the instructor or department for information.

PUBH 7405 Biostatistics: Regression
4 credit(s); prereq [[Stat 5101 or Concurrent registration is required (or allowed) in Stat 5101], biostatistics major] or instr consent ;
Instructor: Le,Chap T.
Description: Student may contact the instructor or department for information.

PUBH 7430 Statistical Methods for Correlated Data
3 credit(s); prereq [[6420 or equiv], [6451 or 6406 or Stat 5303 or equiv], familiarity with matrix notation] or instr consent ;
Instructor: Wolfson,Julian
Description: Student may contact the instructor or department for information.

PUBH 7445 Statistics for Human Genetics and Molecular Biology
3 credit(s); prereq [6450, [6451 or equiv]] or instr consent : background in molecular biology recommended;
Instructor: Reilly,Cavan Sheerin
Description: Student may contact the instructor or department for information.

PUBH 7450 Survival Analysis
3 credit(s); prereq 7405, 7407, [STAT 5102 or STAT 8102];
Instructor: Pan,Wei
Description: Student may contact the instructor or department for information.

PUBH 7460 Advanced Statistical Computing
3 credit(s); prereq [7405, biostatistics major, [C or FORTRAN]] or instr consent ;
Instructor: Connett,John E
Description: Student may contact the instructor or department for information.

PUBH 7469 Biostatistics: Field Experience
S-N only, 2-6 credit(s), max credits 6, 1 completion allowed; prereq Biostatistics MPH student;
Instructor: Rudser,Kyle
Description: Student may contact the instructor or department for information.

PUBH 7500 Organizational Management in Long Term Care
2-4 credit(s), max credits 4, 1 completion allowed;
Instructor: Grant,Leslie Alan
Description: Student may contact the instructor or department for information.

PUBH 7582 Practicum in Long-Term Care Administration
S-N only, 4 credit(s); prereq [7580, 7581, 7583] or [7587, 7588];
Instructor: Grant,Leslie Alan
Description: Student may contact the instructor or department for information.

PUBH 7584 Health Care and Medical Needs
A-F only, 2 credit(s);
Instructor: Grant,Leslie Alan
Description: Student may contact the instructor or department for information.

PUBH 7588 Information Uses in Long-Term Care
A-F only, 2 credit(s); prereq Some knowledge of computers;
Instructor: Potthoff,Sandra Jean
Description: Student may contact the instructor or department for information.

PUBH 7591 Independent Study: Health Care Administration
1-4 credit(s), max credits 20, 20 completions allowed; prereq instr consent ;
Instructor: Grant,Leslie Alan
Description: Student may contact the instructor or department for information.

PUBH 7696 Field Experience: Maternal and Child Health
S-N only, 1-4 credit(s), max credits 4; prereq Maternal/child health major, instr consent ;
Instructor: Harwood PhD,Eileen M.
Description: Student may contact the instructor or department for information.

PUBH 7740 Master's Project Seminar: Public Health Administration and Policy
A-F only, 1 credit(s), max credits 2; prereq Public health administration/policy major;
Instructor: McAlpine,Donna D
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: Nyman,John A.
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: Wholey,Douglas R
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: McAlpine,Donna D
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: Town,Robert James
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: Nyman,John A.
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: McAlpine,Donna D
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: Town,Robert James
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: McAlpine,Donna D
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: Town,Robert James
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: McAlpine,Donna D
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: Town,Robert James
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: McAlpine,Donna D
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: Town,Robert James
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: McAlpine,Donna D
Description: Student may contact the instructor or department for information.

PUBH 7784 MS in Health Services Research, Policy, and Administration Plan B Project
S-N only, 1-2 credit(s), max credits 4; prereq [Health Services Research, Policy/Administration] MS student;
Instructor: Town,Robert James
Description: Student may contact the instructor or department for information.
PUBH 7994 Master’s Project: Public Health Nutrition
S-N only, 1-6 credit(s), max credits 6; prereq PubH Nutr major, instr consent ;
Instructor: Jeffrey, PhD, Robert W
Description: Student may contact the instructor or department for information.

PUBH 7996 Field Experience: Public Health Nutrition
S-N only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq Public health nutrition major, dept consent ;
Instructor: Robien, Kim
Description: Student may contact the instructor or department for information.

PUBH 8120 Occupational Health and Safety Research Seminar
S-N only, 1 credit(s), max credits 12, 12 completions allowed; prereq [5120, [6330 or 6341], 6450, environmental health major, [OIPRTD specialty or equiv]] or instr consent ;
Instructor: Gerberich, PhD, Susan G
Description: Student may contact the instructor or department for information.

PUBH 8140 Validity Concepts in Epidemiologic Research
S-N only, 2 credit(s);
Instructor: Maldonado, George
Description: Student may contact the instructor or department for information.

PUBH 8141 Doctoral Seminar in Observational Inference
S-N only, 2 credit(s), max credits 20, 10 completions allowed;
Instructor: Maldonado, George
Description: This seminar course in observational inference is designed for doctoral students in Public Health who are interested in practicing the fundamentals of epidemiologic inference, including methods for designing, analyzing and interpreting epidemiologic studies. This course is offered every semester. The topic for this semester has not yet been decided.
Style: 100% Discussion.
Grading: 100% class participation.

PUBH 8160 Advanced Toxicology
2 credit(s); prereq [6160, one course in biochem, one course in molecular biol] or instr consent ;
Instructor: Wattenberg, Elizabeth Vaughn
Description: Student may contact the instructor or department for information.

PUBH 8161 Current Literature in Toxicology
S-N only, 1 credit(s), max credits 3, 3 completions allowed; prereq 6104;
Instructor: Wattenberg, Elizabeth Vaughn
Description: Style: 50% Discussion, 50% Student Presentation.
Grading: 50% in-class presentation, 50% class participation.

PUBH 8163 Toxicology
A-F only, 5 credit(s); prereq Enrolled in toxicology concentration of environmental health PhD program;
Instructor: Wattenberg, Elizabeth Vaughn
Description: Student may contact the instructor or department for information.

PUBH 8165 Current Topics in Toxicology
S-N only, 1 credit(s), max credits 2; prereq [Environmental health PhD, toxicology concentration] student or instr consent ;
Instructor: Toscano Jr, William A
Description: Student may contact the instructor or department for information.

PUBH 8166 Experiences in Toxicology Research
A-F only, 3 credit(s); prereq Environmental health PhD student in toxicology concentration;
Instructor: Peterson, Lisa Ann
Description: Student may contact the instructor or department for information.

PUBH 8194 Directed Research: Environmental Health
1-6 credit(s), max credits 6, 1 completion allowed; prereq instr consent ;
Instructor: Ramachandran, Gurumurthy
Description: Student may contact the instructor or department for information.

PUBH 8341 Advanced Epidemiologic Methods: Concepts
3 credit(s); prereq [6341, 6342] or equiv;
Instructor: Oakes, J Michael
Description: Student may contact the instructor or department for information.

PUBH 8401 Linear Models
4 credit(s); prereq [(7405, Concurrent registration is required (or allowed) in STAT 8101) or instr consent ] ;
Instructor: Guan, Weihua
Description: Student may contact the instructor or department for information.

PUBH 8432 Probability Models for Biostatistics
3 credit(s); prereq [7450, 7407, Stat 5102, [advanced biostatistics or statistics] major] or instr consent ;
Instructor: Basu, Saonli
Description: Student may contact the instructor or department for information.

PUBH 8445 Statistics for Human Genetics and Molecular Biology
3 credit(s); prereq [[Stat 5010, Stat 8102] or equiv], PhD student] or instr consent ] ;
Instructor: Reilly, Cavan Sheerin
Description: Student may contact the instructor or department for information.

PUBH 8482 Sequential Analysis
3 credit(s); prereq [7450, 8432, Stat 5102, [advanced biostatistics or statistics] major] or instr consent ;
Instructor: Grambsch, Patricia L
Description: Student may contact the instructor or department for information.

PUBH 8494 Directed Research: Biostatistics
S-N only, 1-4 credit(s), max credits 4, 4 completions allowed; prereq instr consent ;
Instructor: Carlin PhD, Bradley Paige
Description: Student may contact the instructor or department for information.

PUBH 8494 Directed Research: Biostatistics
S-N only, 1-4 credit(s), max credits 4, 4 completions allowed; prereq instr consent ;
Instructor: Telke, Susan Elizabe
Description: Student may contact the instructor or department for information.

PUBH 8494 Directed Research: Biostatistics
S-N only, 1-4 credit(s), max credits 4, 4 completions allowed; prereq instr consent ;
Instructor: Reilly, Cavan Sheerin
Description: Student may contact the instructor or department for information.

PUBH 8801 Health Services Policy Analysis: Theory
3 credit(s); prereq [Grad or professional school] student or instr consent ;
Instructor: Moscovice, Ira S
Description: Student may contact the instructor or department for information.
Schedule.

Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule. This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu.

**Radiology**

2-300 Fairview University Medical Center (Box 292)

**RAD 120 X-Ray Conference**

0 credit(s);
Instructor: Dietz Jr, Charles Albert
Description: Student may contact the instructor or department for information.

**RAD 121 Medical Roentgenologic Conference**

0 credit(s);
Instructor: Dietz Jr, Charles Albert
Description: Student may contact the instructor or department for information.

**RAD 123 Surgical Roentgenologic Conference**

0 credit(s);
Instructor: Dietz Jr, Charles Albert
Description: Student may contact the instructor or department for information.

**RAD 124 Neurosurgical-Roentgenologic Conference**

0 credit(s);
Instructor: Truwit MD, Charles L
Description: Student may contact the instructor or department for information.

**RAD 125 Cardiovascular Roentgenologic Conference**

0 credit(s);
Instructor: Hunter, David W
Description: The lecture is a review of the history of the development of x-rays and an overview of medical imaging in today's practice.
Style: 100% Lecture.
Grading: No information from this lecture will be utilized for any test or grading purposes—although it should enhance their understanding of modern medical diagnosis.

**RAD 126 Roentgenologic Conference on Chest Diseases**

0 credit(s);
Instructor: Anderson, Quentin N
Description: Student may contact the instructor or department for information.

**RAD 220 Nuclear Medicine: Clinical Conference**

0 credit(s);
Instructor: Anderson, Quentin N
Description: Student may contact the instructor or department for information.

**RAD 8200 Nuclear Medicine**

1-15 credit(s), max credits 15, 1 completion allowed;
Instructor: Anderson, Quentin N
Description: Student may contact the instructor or department for information.

**RAD 8210 Fundamentals of Nuclear Medicine**

1 credit(s); prereq 1st-yr resident;
Instructor: Anderson, Quentin N
Description: Student may contact the instructor or department for information.

**RAD 8250 Research: Nuclear Medicine**

1-15 credit(s), max credits 15, 1 completion allowed;
Instructor: Anderson, Quentin N
Description: Student may contact the instructor or department for information.

**Recreation Resource Management**

115 Green Hall

**RRM 1001 Orientation and Information Systems**

A-F only, 1 credit(s);
Instructor: Burk, Thomas Edward
Description: This course provides orientation and planning for students entering the Forest Resources (FR) and Recreation Resources Management (RRM) majors. During this semester students will be introduced to key issues in their fields of study. Description of careers, career planning (choice of major tracks, internships, summer experience, mentoring), academic advising and engagement with alumni contacts are major components of the course. Introduction to professional skill building includes information technology tools in the workplace and access to library and research tools. At the end of this course students should know the kind of course work needed for their degree choice as well as the timing of when to take courses to successfully complete their undergraduate degree program. Students should know what the student learning centers (SLC) and SMART commons are and how to use them. In addition
students should be able to: a) write a cover letter and develop a resume targeting a specific job of interest to them, b) know how to conduct a job search and prepare for a job interview, c) find an internship of interest using resources at the St. Paul Campus Career Center, d) find and apply for study abroad opportunities, e) understand how to use the campus libraries to access information, f) have an appreciation for and obtain some exposure to the importance of geospatial data to their field of study, g) manipulate data in an EXCEL spreadsheet, and h) assess their desire to continue their education beyond the baccalaureate level.

**REC 3480 Topics in Recreation Resource Management**
1-4 credit(s), max credits 6, 6 completions allowed; Instructor: Gustafson,Kent E
Description: A 6 day, 40 hour short course related to the basic principles of festival and event management. The Class will include lecture, small and large group discussion, as well as a "behind-the-scenes" visit to an area event. Topics covered include: event planning as a career; logistics and site planning, risk management, financial management, marketing, sponsorship, and event evaluation. Participants must have full day availability as class sessions run from 9:00am to 4 pm., Thursday-Saturday, September 23-25 and September 30-October 2. Certificate available upon completion of class requirements and submission of an event analysis paper.

**REC 4293 Directed Study**
1-5 credit(s), max credits 12, 12 completions allowed; prereq instr consent; Instructor: Schneider,Ingrid Eleanor
Description: Students select/conduct a study of or project on a topic of personal interest in consultation with faculty member. Documented by initial proposal and reports of accomplishment.

**REC 4293 Directed Study**
1-5 credit(s), max credits 12, 12 completions allowed; prereq instr consent; Instructor: Messer,Cynthia Cosdon
Description: Students select/conduct a study of or project on a topic of personal interest in consultation with faculty member. Documented by initial proposal and reports of accomplishment.

**REC 4293 Directed Study**
1-5 credit(s), max credits 12, 12 completions allowed; prereq instr consent; Instructor: Davenport,Mae Allen
Description: Students select/conduct a study of or project on a topic of personal interest in consultation with faculty member. Documented by initial proposal and reports of accomplishment.

**REC 5259 Visitor Behavior Analysis**
3 credit(s); prereq RRM major or ENR major or ESPM major or grad student or instr consent; Instructor: Davenport,Mae Allen
Description: Student may contact the instructor or department for information.

**Recreation, Park, and Leisure Studies**
220 Cooke Hall

**REC 1501 Orientation to Leisure and Recreation**
3 credit(s); Instructor: Magnuson,Connie
Description: Introduction to the field of recreation and leisure studies through several field trips and service learning opportunities that highlight a variety of recreation programs, facilities, services and delivery systems. This interactive, experiential approach allows students to see first hand the opportunities and careers in the recreation industry. Most classes will be spent out of class and in the field meeting professionals in the industry and exploring various agencies (recreation centers, athletic facilities, camps, outdoor based programs, nature centers, campus recreation, national parks, regional parks...). Discover the many career paths available and the relevancy of this field in the quality of life of our society!

**REC 3281 Research and Evaluation in Recreation, Park, and Leisure Studies**
A-F only, 4 credit(s); prereq 1501 or instr consent; Instructor: Brown,Tony Kevin
Description: Basic techniques; emphasis on social research and evaluation methodology; survey of present status of recreation and park research and evaluation.

**REC 3541W Recreation Programming**
A-F only, 3 credit(s); prereq 1501 or instr consent, Rec major; Meets CLE req of Writing Intensive; Instructor: Miller,Susan
Description: The emphasis of this course is on the program planning process from creating the idea through the evaluation. Various formats such as leisure learning, field trips and special event participation are highlighted as well as developing the skills needed to produce professional programs for diverse populations. This is a hands-on class and skills acquired and project development learned can be used in a wide variety of recreation settings.

**REC 3796 Senior Internship in Recreation, Park, and Leisure Studies**
S-N only, 9 credit(s); prereq Rec major, completion of most core courses, sr, instr consent; Instructor: Magnuson,Connie
Description: Supervised field experience for pre-professional students in selected agencies.

**REC 3993 Directed Study in Recreation, Park, and Leisure Studies**
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq Rec major, instr consent; Instructor: Magnuson,Connie
Description: Students select/conduct a study of or project on a topic of personal interest in consultation with faculty member. Documented by initial proposal and reports of accomplishment.

**REC 3993 Directed Study in Recreation, Park, and Leisure Studies**
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq Rec major, instr consent; Instructor: Kane,Mary Jo
Description: Scholarly projects (e.g., library or field research) or demonstration projects.

**REC 3993 Directed Study in Recreation, Park, and Leisure Studies**
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq Rec major, instr consent; Instructor: Ross,Stephen D
Description: Scholarly projects (e.g., library or field research) or demonstration projects.

**REC 3993 Directed Study in Recreation, Park, and Leisure Studies**
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq Rec major, instr consent; Instructor: Kihi,Lisa A
Description: Scholarly projects (e.g., library or field research) or demonstration projects.

**REC 5111 Sports Facilities**
A-F only, 3 credit(s); prereq Kin or Rec major or instr consent ; 
Instructor: Turman PhD, James C
Description: An overview of sports facilities including the planning, development, design, funding, financing, and construction of such facilities with emphasis on major indoor multipurpose facilities for recreational sports, physical education, and intercollegiate athletics on the college campus and an introduction to public/private arenas and stadiums. The class will tour selected on-campus kinesiology, athletic, and recreational facilities. Students will be assigned a group sports facilities project and present their concepts and plans to the class. Other topic areas may include, operations management, marketing, advertising, public relations, and risk management.
Style: 35% Lecture, 20% Discussion, 15% Small Group Activities, 10% Student Presentation, 15% Field Trips, 5% Guest Speakers.
Grading: 17% final exam, 35% reports/papers, 25% special projects, 5% quizzes, 13% written homework, 5% attendance.
Note: attendance also includes in-class presentation and participation.
Exam Format: multiple choice, fill-in, matching, and essay

REC 5161 Recreation Land Policy
A-F only, 3 credit(s); prereq 1501 or 5101 or instr consent; 
Instructor: Magnuson, Connie
Description: Course Description: Discover how we manage our public land and resources through hands on simulations, expert guest speakers, and examination of the current issues and literature. Course Focus and Objectives: Understand how our public parks and lands are managed in the United States. As taxpayers, we all own this public land and the facilities and resources contained therein. Discover who the players and stakeholders are and how policies that govern our land are developed. Learn about the challenges and issues that managing authorities face when attempting to both preserve our natural resources and environment while also allow use by the public. Experts from the various levels of government systems (National Park Service, DNR, Regional Parks, Suburban and Urban Parks) will share their experiences and challenges of managing these resources. Learn about decision-making and the challenges of retaining our natural resources through the always enjoyable and engaging, simulation activity Quagmire. This course is offered as a hybrid class with both in-class and on-line components.

REC 5271 Community Leisure Services for Persons with Disabilities
A-F only, 3 credit(s); prereq 1501, Rec major or instr consent; 
Instructor: Magnuson, Connie
Description: This course explores services that have historically been provided for persons with disabilities and how that has drastically changed over the past few decades. We will evaluate how individuals with disabilities are portrayed in popular film and how that influences our perceptions and expectations. We learn about “people first” language, etiquette, and how to interact with a person with a disability. This is done first in the class room and then with a hands-on learning experience in the community. It is designed to be an informative course that will challenge your perceptions and give you a better understanding of working with people of all abilities.

REC 5421 Sport Finance
A-F only, 3 credit(s); prereq Grad student or instr consent ; 
Instructor: Ross, Stephen D
Description: In recent years, traditional sources of revenue ? tax support, media revenues and gate receipts ? have declined while costs have escalated. Increased demand for state-of-the-art facilities, coupled with an increase in player and operational costs, have forced sport managers to do more with less. This course is designed to provide students with an introduction to financial analysis, including discussion of traditional and innovative revenue producing strategies available to sport organizations. Along with more conventional income sources such as tax support, municipal and corporate bonds, ticket sales, concessions and fund raising, students will receive in-depth exposure to more recent innovations.

REC 5461 Foundations of Sport Management
A-F only, 3 credit(s); prereq Kin or rec or postbac or grad student or instr consent; 
Instructor: Esten, Phil L
Description: Theories/techniques in administration/management of sport enterprises. Organizational theory/policy, practical examples of sport management skills/strategies.

REC 5511 Women in Sport and Leisure
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: KIN 5511; 
Instructor: Buysse, Jo Ann
Description: The primary purpose of this course is to provide students with an opportunity to critically examine, understand and appreciate women’s involvement in-and contributions to-sport and physical activity from both an historical and contemporary perspective. Students will be expected to analyze, critique, and evaluate a wide range of historical, cultural, economic and socio-psychological issues that have shaped the nature and scope of women’s participation in sport, physical activity and leisure. Utilizing feminist perspectives, particular attention will be given to the various ways in which females (and their bodies) are often viewed as fundamentally different-physically, socially and psychologically-from their male counterparts. Much of this analysis will take place against the backdrop of highly organized, competitive sports such as intercollegiate athletics. In addition, we will see how it is impossible to separate women’s and men’s sports from the broader societal roles of women and men in general. Finally, issues that address race/ethnicity, social class and sexual orientation, and how those issues influence women’s and men’s sports, will also be emphasized throughout the semester. This course will be web enhanced through webctvista.
Style: 50% Lecture. 40% Discussion.
Grading: 25% mid exam, 45% reports/papers, 10% in-class presentation, 20% class participation.
Exam Format: essay

REC 5631 Programming and Promotion in Sport
A-F only, 3 credit(s); prereq Kin or Rec grad student or instr consent; 
Instructor: Ross, Stephen D
Description: While sport promoters can be traced as far back as early 20th century boxing matches, sport marketing as a concept has just recently been credited with the sudden rise in industrial interest. Although the sport industry is still in its early growth period, it has experienced extreme financial prosperity. Largely responsible for the increased popularity and revenue gain of the field is sport marketing. This course is designed to introduce marketing concepts as they apply to the sport industry. Topics such as consumer behavior, market research, the marketing mix and licensing will be covered through the use of interactive discussion and practical application.

REC 5801 Legal Aspects of Sport and Recreation
A-F only, 4 credit(s); prereq 3551 or 5461 or instr consent; 
Instructor: Loher, Vickie Lynn
Description: Legal issues related to recreation, park, and sport programs/facilities with public/private sectors.

REC 5981 Research Methodology in Kinesiology, Recreation, and Sport
A-F only, 3 credit(s); prereq MEd or grad student or instr consent; Credit will not be granted if credit has been received for: KIN 5981; 
Instructor: Kihl, Lisa A
Description: Research strategies as alternatives to traditional scientific studies. Qualitative research, field studies, and introspective exercises in-depth exposure to more recent innovations. 

REC 5992 Readings: Recreation
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq REC major, instr consent REC major, instr consent; Instructor: Magnuson, Connie
Description: Independent study under tutorial guidance by faculty member on particular topic(s) not covered in regular coursework.

REC 5995 Problems in Recreation, Park, and Leisure Studies
A-F only, 1-9 credit(s), max credits 9, 9 completions allowed; prereq [REC MEd or grad student], instr consent; Instructor: Brownlee, Eric A
Description: Independent study of leisure service programs, systems, facilities, or policies. Focuses on conduct of recreation programs. Scholarly projects (e.g., library or field research) or demonstration projects.

REC 6796 Practicum in Recreation, Park, and Leisure Studies
S-N only, 3-9 credit(s), max credits 9, 3 completions allowed; prereq [REC MEd or grad student], instr consent; Instructor: Buyse, Jo Ann
Description: Practical experiences in recreation under supervision of University faculty member and agency supervisor.

REC 6796 Practicum in Recreation, Park, and Leisure Studies
S-N only, 3-9 credit(s), max credits 9, 3 completions allowed; prereq [REC MEd or grad student], instr consent; Instructor: Allison JD, Rayla
Description: Supervised experiences in program operation, management, administration, and supervisory duties in therapeutic recreation, leisure services, or sport management.

REC 6796 Practicum in Recreation, Park, and Leisure Studies
S-N only, 3-9 credit(s), max credits 9, 3 completions allowed; prereq [REC MEd or grad student], instr consent; Instructor: Magnuson, Connie
Description: Supervised experiences in program operation, management, administration, and supervisory duties in therapeutic recreation, leisure services, or sport management.

REC 8995 Research Problems in Recreation, Park, and Leisure Studies
S-N only, 1-4 credit(s), max credits 9, 3 completions allowed; prereq instr consent REC PhD student, instr consent; Instructor: Brownlee, Eric A
Description: Practical experiences in recreation under supervision of University faculty member and agency supervisor.

REC 8995 Research Problems in Recreation, Park, and Leisure Studies
S-N only, 1-4 credit(s), max credits 9, 9 completions allowed; prereq instr consent REC PhD student, instr consent; Instructor: Ross, Stephen D
Description: Individual scholarly research.
RSC 5294 Independent Study in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq Rehabilitation science student or program approval; Instructor: Patterson, Robert Patrick
Description: Student may contact the instructor or department for information.

RSC 5294 Independent Study in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq Rehabilitation science student or program approval; Instructor: Carey, James Robert
Description: Student may contact the instructor or department for information.

RSC 5294 Independent Study in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq Rehabilitation science student or program approval; Instructor: Mathiowetz, Virgil G
Description: Student may contact the instructor or department for information.

RSC 5294 Independent Study in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq Rehabilitation science student or program approval; Instructor: Schaber, Patricia Louise
Description: Student may contact the instructor or department for information.

RSC 5294 Independent Study in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq Rehabilitation science student or program approval; Instructor: Lowe, Dawn Annette
Description: Student may contact the instructor or department for information.

RSC 5294 Independent Study in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq Rehabilitation science student or program approval; Instructor: Kukulka, Carl G
Description: Student may contact the instructor or department for information.

RSC 5294 Independent Study in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq Rehabilitation science student or program approval; Instructor: Nuckley, David J
Description: Student may contact the instructor or department for information.

RSC 5294 Independent Study in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq Rehabilitation science student or program approval; Instructor: Stern, Erica Beth
Description: Student may contact the instructor or department for information.
RSC 8170 Special Topics in Rehabilitation Science
A-F only, 1 credit(s), max credits 3, 3 completions allowed; 
prereq [Rehabilitation science student or program permission], instr consent; 
Instructor: Schaber PhD, Patricia Louise
Description: Student may contact the instructor or department for information.

RSC 8170 Special Topics in Rehabilitation Science
A-F only, 1 credit(s), max credits 3, 3 completions allowed; 
prereq [Rehabilitation science student or program permission], instr consent; 
Instructor: Thompson PhD, LaDora V
Description: Student may contact the instructor or department for information.

RSC 8170 Special Topics in Rehabilitation Science
A-F only, 1 credit(s), max credits 3, 3 completions allowed; 
prereq [Rehabilitation science student or program permission], instr consent; 
Instructor: Ludewig, Paula M
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; 
prereq [Rehabilitation science student or program permission], instr consent; 
Instructor: Carey, James Robert
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; 
prereq [Rehabilitation science student or program permission], instr consent; 
Instructor: Mathiowetz PhD, Virgil G
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; 
prereq [Rehabilitation science student or program permission], instr consent; 
Instructor: Nuckley PhD, David J
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; 
prereq [Rehabilitation science student or program permission], instr consent; 
Instructor: Porter PhD, Robert Patrick
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; 
prereq [Rehabilitation science student or program permission], instr consent; 
Instructor: Ludewig, Paula M
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; 
prereq [Rehabilitation science student or program permission], instr consent; 
Instructor: Thompson PhD, LaDora V
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; 
prereq [Rehabilitation science student or program permission], instr consent; 
Instructor: Anderson, Kathleen
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; 
prereq [Rehabilitation science student or program permission], instr consent; 
Instructor: Mathiowetz PhD, Virgil G
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; 
prereq [Rehabilitation science student or program permission], instr consent; 
Instructor: Anderson, Kathleen
Description: Student may contact the instructor or department for information.
RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Kukulka, Carl G
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Di Fabio, Richard P
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Thompson PhD, LaDora V
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Ludewig, Paula M
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Lowe, Dawn Annette
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Kukulka, Carl G
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 completions allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Nuckley PhD, David J
Description: Student may contact the instructor or department for information.

RSC 8188 Teaching Practicum
A-F only, 1-5 credit(s), max credits 5, 1 completion allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Carey, James Robert
Description: Student may contact the instructor or department for information.

RSC 8188 Teaching Practicum
A-F only, 1-5 credit(s), max credits 5, 1 completion allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Mathiowetz PhD, Virgil G
Description: Student may contact the instructor or department for information.

RSC 8188 Teaching Practicum
A-F only, 1-5 credit(s), max credits 5, 1 completion allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Anderson, Kathleen
Description: Student may contact the instructor or department for information.

RSC 8188 Teaching Practicum
A-F only, 1-5 credit(s), max credits 5, 1 completion allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Snow MD, PhD, LeAnn M
Description: Student may contact the instructor or department for information.

RSC 8188 Teaching Practicum
A-F only, 1-5 credit(s), max credits 5, 1 completion allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Di Fabio, Richard P
Description: Student may contact the instructor or department for information.

RSC 8188 Teaching Practicum
A-F only, 1-5 credit(s), max credits 5, 1 completion allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Stern PhD, Erica Beth
Description: Student may contact the instructor or department for information.

RSC 8188 Teaching Practicum
A-F only, 1-5 credit(s), max credits 5, 1 completion allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Kimbrell, PT, PhD, Teresa Jacobson
Description: Student may contact the instructor or department for information.
Religious Studies
245 Nicholson Hall

RELS 1034 Introduction to Jewish History and Civilization
3 credit(s); prereq credit will not be granted if credit already received for: RelA 1034, 3034, JwSt 1034, 3034, RelS 3034; Credit will not be granted if credit has been received for: JWST 1034; Meets CLE req of Historical Perspectives; Instructor: Jassen,Alex P
Description: The course provides a general introduction to Judaism in its many ancient and modern expressions. Students are introduced both to the historical narrative of the Jewish people and the beliefs and practices of the Jewish religion. We begin our story of Jewish history by examining the emergence of Judaism from the world of the Hebrew Bible (Old Testament) and ancient Israel and its continued development under the empires of Persia, Greece, and Rome. We then explore encounters between Judaism, Christianity, and Islam in the medieval world. We then turn to the impact of modernity and the Enlightenment on Judaism and the dramatic transformations that have shaped Judaism in the modern period. Across this broad historical landscape, we explore the diverse beliefs and practices of Judaism. We address the questions of what do Jews believe? and what do Jews do? through close analysis of different forms of Judaism across time and space. We seek to address the issue of what unites these diverse forms of Judaism and marks them all as Jewish. We also attempt to understand the social, literary, historical, and cultural influences that have helped shape the varieties of Jewish traditions and the influence of Judaism on other religions and cultures. The central ideas and motifs of Judaism to be addressed include: the Bible in Judaism, rabbinic literature, theology, Jewish mysticism (Kabbalah) and philosophy, Jewish law, Jewish nationalism, anti-Semitism, messianism, Jewish culture and identity, the synagogue, ritual and worship, life cycle, festivals and calendar. Students engage with the central questions of Jewish history through reading a wide selection of primary texts in translation, multimedia, classroom discussion, and critical writing assignments. There are no prerequisites for this course. It is intended to provide students with a general introduction to Judaism and stimulate interest in exploring further aspects of Jewish history and civilization and Religious Studies. Full Syllabus at: https://sites.google.com/a/umn.edu/jassen/my-courses/introduction-to-jewish-history-culture?rel=edm
RELS 3071 Greek and Hellenistic Religions
3 credit(s); prereq credit will not be granted if credit already received for: REA 3701, REA 5071, REIS 3071
Instructor: Sellin, Philip
Description: A survey of ancient Greek religion from the Bronze Age down to Hellenistic times. The approach is both historical and thematic. Topics include pre-historic religion; Homer and the Olympian deities; archaeology of cult; music, dance, and procession as ritual performance; prayer and sacrifice; temple architecture and sanctuaries; oracles; beliefs about death and the afterlife; mythological characters; philosophical religion; criticism of traditional myths; Alexander and ruler cult; astrology and magic; and Near Eastern salvation religions. We pose questions of Greek tragedy and comedy, satire and pious hymnody. Extensive use of Homer, Sappho, Pindar, Aeschylus, Euripides, and Plato allows us to hear distinct voices within the overall Greek social and religious variety. We study the use of architectural space to define and express divisions between sacred and profane. The visual arts are of central importance, to help us both see? these foreign or familiar gods and goddesses heroes and heroines, as well as query the ordering principles they represent. Sculpture, vase painting, gems, and coins are all brought into the picture.
Style: 85% Lecture, 10% Discussion, 5% Field Trips.
Grading: 15% mid exam, 20% final exam, 45% reports/papers, 5% special projects, 15% additional semester exams.
Exam Format: Brief IDs and short answer questions; one essay.

RELS 3078 Jews of the Islamic Mediterranean and Christian Europe, 7th-17th Centuries
3 credit(s); Credit will not be granted if credit has been received for: JWST 3778
Instructor: Schroeter, Daniel J
Description: The Jewish Diaspora that emerged in late antiquity and the early Middle Ages was remarkably diverse, while at the same time Jews shared common religious and cultural traditions. This course explores how Jews were shaped by the sociocultures and communities of the Islamic Mediterranean World and Christian Europe from 700 to 1700, while maintaining a distinctive identity. Under the dominant religions of Islam and Christianity, Jews developed autonomous religious and cultural institutions and communities, which often came into conflict or cooperation. The course will examine how Jewish communities were created and maintained through trade, travel, and the exchange of rabbinical culture and Jewish religious authority across political boundaries. While Jewish status differed under Muslim and Christian rule, this course explores how the experience of Jews was influenced by changing local circumstances, migrations, expulsions, violence, persecution, and resettlement in new locations with the expansion of trade routes and political changes in both the Islamic and Christian worlds.
Style: 80% Lecture, 20% Discussion.
Grading: 20% mid exam, 35% final exam, 30% reports/papers, 15% class participation.

RELS 3079 American Indian Philosophies
4 credit(s);
Instructor: Ghebregzi, Alex Anthony
Description: The purpose of this course is to introduce students
to the philosophical thought and spiritual beliefs of native peoples of North America. Students will examine a broad spectrum of issues which influence the worldview of native people on this continent, including European contact and thought. Students may find some of the issues to be controversial and personally challenging, however, a thorough discussion of the impact of European influences is important to understanding native people's resistance and survival. Finally, students will also explore the ways in which native philosophy and spiritual practices shape native life experience in a society viewed by many native people as being at odds with their beliefs.

**Style:** 60% Lecture, 20% Discussion. Group work

**Grading:** 33% mid exam, 33% final exam, 17% reports/papers, 17% class participation.

**Exam Format:** The exams will be a take home essay.

**RELS 3520 History of the Holocaust**

3 credit(s); Credit will not be granted if credit has been received for: RELS 3521W

**Instructor:** Konieczny, Matthew James

**Description:** Student may contact the instructor or department for information.

**RELS 3542 The Age of Justinian and Muhammad (c.500-c.700 A.D.)**

3 credit(s); Credit will not be granted if credit has been received for: CNES 3109

**Instructor:** Nicholson, Oliver

**Description:** Student may contact the instructor or department for information.

**RELS 3622 'Sinners, Saints, and Savages': Religion in Early America**

3 credit(s); prereq Non-fr or instr consent

**Instructor:** Fischer, Kirsten

**Description:** The United States is home to an astonishing array of religious beliefs and institutions. While mutual toleration is a widely-held ideal, it hasn't always been this way. This course investigates the religious pluralism of early America and explores how people of differing faiths perceived, reacted to, and changed each other before 1800. We will investigate Native American, Euro-American, and African American cosmologies; culturally divergent ideas about moral conduct; the religious motivations and justifications behind efforts to reform (or transform) society; the relationship between religious worldviews and ideas about racial difference, gender relations, class structures, and relations of authority. We will also examine how religious faiths and institutions could serve as vehicles of oppression or as means of liberation in the context of colonization, enslavement, and revolution. In addition to offering a comparative and multi-cultural analysis of religion in early America, the course also investigates religious disagreements among Anglo-Americans, whose diverse views about religious authority and the place of religion in American politics were by no means resolved after the American Revolution. Distinct ideas about the character and demands of the Supreme Being and the nature and responsibilities of human beings resulted in disagreements over the proper relations between women and men, whites and blacks, ordained ministers and inspired laypersons, and the church and the state. By the end of the course, students will understand religion as one of the important factors that shaped society and social conflicts in early America. Students will find that the religious diversity of modern-day America had antecedents in the colonial and revolutionary periods, while freedom of conscience evolved only slowly. By learning how the intense, often coercive, and sometimes brutal conflicts over religion resulted in an eventual truce of pluralism, students will understand how freedom of conscience in this country has been hard-won rather than simply assumed or easily assured.

**Style:** 15% Lecture, 5% Film/Video, 60% Discussion, 20% Small Group Activities

**Grading:** 70% reports/papers, 10% attendance, 20% class participation.

**RELS 3623 Religion and the U.S. Founding: Contests Then and Now Over the Place of Religion in Politics**

3 credit(s); Credit will not be granted if credit has been received for: HIST 3804; Meets CLE req of Historical Perspectives

**Instructor:** Fischer, Kirsten

**Description:** A heated debate rages in the U.S. today about the proper role of religion in American politics. In arguing about the appropriate relationship of church and state, contenders on all sides frequently support their claims with references to the framers of the U.S. Constitution. Some see these men as devout Christians intent on establishing a Christian Nation, while others view them as secularists focused on separating church and state. All sides use direct quotes to make their case. Who is right? This Historical Perspectives course explores how leading political figures wrote about religion during and after the framing of the U.S. Constitution. The course also investigates competing religious currents in the early Republic, the rise of the Religious Right in the 20th century, and debates in the late-18th century and today over the proper role of religion in American politics. See the syllabus for more information.

**Style:** 70% Lecture, 5% Film/Video, 10% Discussion, 15% Small Group Activities

**Grading:** 20% mid exam, 30% final exam, 40% reports/papers.

**Exam Format:** The mid-term exam will be written during class time. The final is a take-home exam.

**RELS 3715 History of the Crusades**

3 credit(s);

**Instructor:** Reyerson, Kathryn L

**Description:** Student may contact the instructor or department for information.

**RELS 5071 Greek and Hellenistic Religions**

3 credit(s); prerequisite must be satisfied for credit already received for: RelA 3071, RelA 5071, RelS 3071

**Instructor:** Sellew, Philip

**Description:** A survey of ancient Greek religion from the Bronze Age down to Hellenistic times. The approach is both historical and thematic. Sources include literature, art, and archaeology. Topics include pre-historic religion; Homer and the Olympian deities; archaeology of cult; music, dance, and procession as ritual performance; prayer and sacrifice; temple architecture and sanctuaries; oracles; beliefs about death and the afterlife; mystery cults; philosophical religion; criticism of traditional myths; Alexander and ruler cult; astrology and magic; and Near Eastern salvation religions. Registration in 5071 is intended for graduate students, though some specially qualified undergraduates may be admitted. There is a required weekly discussion section.

**Style:** 80% Lecture, 15% Discussion, 5% Field Trips

**Grading:** 20% mid exam, 20% final exam, 30% reports/papers, 10% in-class presentation, 20% class participation.

**Exam Format:** Short answers and two essays.

**RELS 5255 Archaeology of Religion**

3 credit(s);

**Instructor:** Soderberg, John A

**Description:** Student may contact the instructor or department for information.

**Respiratory Care**

**20 Classroom Office Building**

**RC 2011 Foundations for Clinical Practice of Respiratory Care**

A-F only, 2 credit(s); prerequisite must be satisfied for credit already received for: BAS respiratory care major

**Instructor:** King, Vanessa Lea

**Description:** This course reviews the profession of respiratory care - clinical roles/responsibilities and career options. Students explore respiratory care subspecialties and differences in professional settings, and interview practitioners and 2nd year students. Students prepare to begin clinical practice in respiratory care within a hospital setting. Class includes laboratory sessions, discussion, simulation and role-playing.
RC 2021 Patient Care Techniques
A-F only, 2 credit(s); prerequisite BAS respiratory care major;
Instructor: King, Vanessa Lea
Description: This course introduces students to the fundamental practice, attitudes and competencies needed by all health care providers including respiratory care practitioners. Communication skills, infection control, vital signs and patient assessment are reviewed. General care techniques performed by both respiratory and nursing personnel are mastered, including moving transfer of patients. Specific care for special problems is reviewed, including immobilized patients such as those receiving mechanical ventilation.

RC 3101 Respiratory Care Modalities and Equipment I
A-F only, 4 credit(s); prerequisite 2210 or equivalent, BAS RC student;
Instructor: King, Vanessa Lea
Description: Students will become proficient in performing non-invasive monitoring and therapeutic procedures. Those procedures will include: medical gas therapy, humidify and aerosol therapy, bronchial drainage, and volume expansion therapy. Commonly prescribed aerosol medications will also be reviewed. Procedures will be discussed in context with national practice guidelines as to the scientific basis of: rational, limitations, hazards and complications, issues of asepsis and modification to adapt to patient needs.

RC 3201 Cardiopulmonary Patient Assessment
A-F only, 4 credit(s); prerequisite 2210 or equiv, BAS RC student;
Instructor: King, Vanessa Lea
Description: Patient assessment skills are developed to allow students to interpret patient data including: the chart record, interview, physical examination, medical laboratory data, pulmonary function reports (including blood gas analysis), electrocardiogram, hemodynamic record, mechanical ventilator flow sheet, and radiographic imaging. Cardiopulmonary diseases are introduced with emphasis on pathophysiological manifestations that can be assessed. The laboratory provides a setting for role playing, mock exams and practice of assessment skills. In cooperation with Mayo School of Health Sciences, Rochester.

RC 3301 Clinical Practice I
S-N only, 4 credit(s); prerequisite BAS respiratory care major;
Instructor: King, Vanessa Lea
Description: Students begin a series of rotations including 18 different clinical areas at the Mayo Medical Center. Each rotation requires completion of specific competencies. Those areas include: 9 intensive care units, the operating room, emergency room, general floor care areas, pulmonary function labs, sleep disorders center, smoking cessation clinic, pulmonary rehabilitation program, home care, and an outpatient clinic. Students will perform respiratory care procedures and diagnostic testing with the supervision of a clinical instructor. In cooperation with Mayo School of Health Sciences, Rochester.

RC 3401 Seminar in Respiratory Care I: Case reports and Fundamentals of Research
A-F only, 1 credit(s); prerequisite 2210;
Instructor: Plevak, David Joseph
Description: Students will attend weekly conferences and seminar to expand the course of clinical importance in respiratory care. The professional medical literature will be critically reviewed both from the standpoint of scientific method and clear writing style. Students will review patient cases with attention to events that required problem solving and critical thinking. Students will collaborate on a class research project leading to abstract submission. (1 hour (either Pulmonary & Critical Care Medicine Case Conference or Combined Crit Care Conference, and 2 hour seminar weekly. In cooperation with Mayo School of Health Sciences, Rochester.

RC 3601 Clinical Research Concepts and Practice
A-F only, 3 credit(s); prerequisite RC or RTT major;
Instructor: Plevak, David Joseph
Description: Students will review the process of research with a focus on applications in health science fields. The course provides study content in statistics, research study design including problem statement development and protocol development, research questions or hypothesis development, feasibility, sampling methods and instruments, data management, data analysis and interpretation, and dissemination of research. Concepts in analysis include both descriptive and inferential statistics.

RC 4111 Advanced Adult Respiratory Critical Care Techniques
A-F only, 3 credit(s); prerequisite 3102, BAS RC student;
Instructor: Plevak, David Joseph
Description: Students will focus on topics relevant to providing respiratory care to critically ill adults. There will be an emphasis on reviewing case examples of cardiopulmonary problems and therapeutic procedures. However, a multi-organ system-wide patient approach will be maintained. Advanced competencies in ventilator management and critical care monitoring procedures including hemodynamic monitoring will be assured by laboratory experiences. In cooperation with Mayo School of Health Sciences, Rochester.

RC 4201 Subspecialization in Respiratory Care: Advanced Perinatal and Pediatric Respiratory Care
A-F only, 2 credit(s); prerequisite 3102, BAS RC student;
Instructor: STAFF
Description: This didactic course combined with its clinical counterpart will allow students to assume the role of the perinatal/pediatrics specialist as defined by National Board for Respiratory Care’s (NBRC). A thorough review of the literature on mechanical ventilation, monitoring applied with emphasis on an evidence-based care will be provided. Current strategies for extended mechanical ventilation or other forms of long-term support will be reviewed using case study examples. (32 hours of class; 32 hours of laboratory) In cooperation with Mayo School of Health Sciences, Rochester.

RC 4202 Subspecialization in Respiratory Care: Advanced Cardiopulmonary Diagnostics
A-F only, 2 credit(s); prerequisite 3102, BAS RC student;
Instructor: King, Vanessa Lea
Description: Students will review the rationale and methods used in cardiopulmonary diagnostics. This course along with its clinical counterpart will allow students to assume the role of the advanced pulmonary function technician and completing the NBRC’s CPFT & RPFT specialty board exams. Procedures in which participants would become competent would include inert gas and body plethysmographic measurement of lung capacity, diffusion studies, bronchial provocation, and heart & lung function during maximal exercise. Interpretation of results and quality control in the laboratory will be facilitated by case reviews and laboratory experiences. (32 hours of class; 32 hours of laboratory) In cooperation with Mayo School of Health Sciences, Rochester.

RC 4203 Subspecialization in Respiratory Care: Cardiopulmonary Rehabilitation, Disease Prevention, Case Mgmt
A-F only, 1 credit(s); prerequisite 3102, BAS RC student;
Instructor: STAFF
Description: Students will review the delivery of care to chronically ill patients with lung and heart disorders with emphasis on respiratory care. The rehabilitation process will be applied to hospital-based programs, extended care facilities and in the home. Topics include clinical testing, exercise prescriptions, and practice guidelines for management. Patient case reviews as part of the laboratory will underscore the multidisciplinary approach to case management and responsibilities unique to the respiratory therapist. This course along with its clinical counterpart will allow students to perform the responsibilities attributed to this subspecialty in respiratory care. Students will become certified asthma educators. In cooperation with Mayo School of Health Sciences, Rochester.

RC 4496 Subspecialty Clinical Practicum in Advanced
Respiratory Care I
S-N only, 3 credit(s); prereq 3302, BAS respiratory care major;
Instructor: King, Vanessa Lea
Description: This clinical session continues to assist the student in the achievement of clinical competencies. Students will complete required advanced level clinical competency exams. The student's understanding of the methodology behind the treatment technique and their critical thinking ability will be assessed. During this session, students rotate through dosimetry and participate in radiation treatment planning.

Retail Merchandising
240 McNeal Hall

RM 1201 Clothing Design, Merchandising, and the Consumer
A-F only, 3 credit(s); prereq credit will not be granted if credit already received for: DHA 1201; Meets CLE req of Civic Life and Ethics;
Instructor: Johnson PhD, Kim KP
Description: In this course I provide students with an orientation to the apparel business, emphasizing ethical dimensions of decision-making regarding the delivery of textile and apparel products to the ultimate consumer. Topics covered include development of the fashion system and the ready-to-wear industry; early ethical positions on the use of labor; how consumer demand fuels fashion; apparel manufacturing and sweat-shop labor; business and legal framework for the industry; types of retailers and retailing; retail functions; retailer as citizen of the community. To address these topics I use a variety of learning approaches including videos, guest speakers, in-class exercises, case studies, and readings. The course is web enhanced thru WebCT.
Style: 50% Lecture, 20% Discussion. Guest speakers, videos
Grading: 20% mid exam, 25% final exam, 25% quizzes, 20% written homework, 10% class participation. 3 exams given during the semester
Exam Format: Multiple choice, true/false, fill in the blank

RM 2196 Work Experience in Retail Merchandising
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent ;
Instructor: Johnson PhD, Kim KP
Description: Student may contact the instructor or department for information.

RM 2196 Work Experience in Retail Merchandising
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent ;
Instructor: Wu, Juanjuan
Description: Student may contact the instructor or department for information.

RM 2196 Work Experience in Retail Merchandising
S-N only, 1-4 credit(s), max credits 8; prereq Plan submitted/approved by [adviser, internship supervisor], written approval of supervisor, instr consent ;
Instructor: Kim, Hye-Young
Description: Student may contact the instructor or department for information.

RM 3170 Topics in Retail Merchandising
A-F only, 1 credit(s), max credits 32, 8 completions allowed;
Instructor: Olson, Beverly A
Description: Student may contact the instructor or department for information.

RM 3170 Topics in Retail Merchandising: Chinese Fashion
A-F only, 1 credit(s), max credits 32, 8 completions allowed;
Instructor: Wu, Juanjuan
Description: Student may contact the instructor or department for information.

RM 3201 Strategic Career Planning
A-F only, 1 credit(s); prereq [jr or sr or at least 60 cr], retail merchandising major credit will not be granted if credit already received for: DHA 3201;
Instructor: Fredrickson, Heather Nagle
Description: Strategic Career Planning for students in Retail Merchandising - Discover your strengths, learn what career opportunities fit with your major and develop top-notch skills and materials to land you an ideal internship or job! The focus of this course is to increase your awareness, knowledge and skills associated with the career identification and internship/job search process. Through this course you will gain an understanding of the relationship of interests, skills, personality, and work values to career choice. Each topic will convey information that will be applicable for a lifetime of career development and employment change. Learning job search strategies and developing application skills are intended to increase your level of self-confidence in this process. You will: examine your skills, interests and individual strengths; learn about retail-related careers and companies; produce a resume and sample cover letter that best represent your experience and career interests to potential employers; learn networking and internship/job search techniques, including identifying employment listings and conducting employer research; learn how to research and prepare for salary negotiation; prepare for and practice an interview; and develop an action plan and set career related goals. This is an interactive course, which also includes individual practice/mock interviews with Career Professionals and a Career Panel.
Style: 55% Lecture, 10% Discussion. Class Activities
Grading: 50% reports/papers, 40% special projects, 10% class participation.

RM 3242 Retail Buying
A-F only, 3 credit(s); prereq [(1201 or DHA 1201), [2215 or DHA 2215 or 3245], [MATH 1031 or MATH 1051 or MATH 1142 or MATH 1151 or MATH 1155 or MATH 1271], [jr or sr], retail merchandising [major or minor] or instr consent
Credit will not be granted if credit has been received for: DHA 3242 or 4242;
Instructor: Kim, Hye-Young
Description: An overview of the merchandising principles and mathematics needed for retail planning, buying, and selling. Lectures in class will be very concept focused with problem examples. The instructor will explain concepts and the use of formulas and then have you work through practice problems assigned from your textbook. You should bring your textbook and a calculator to each class period.
Style: 60% Lecture, 10% Discussion, 10% Small Group Activities, 10% Guest Speakers, 10% Web Based.
Grading: 15% mid exam, 15% final exam, 20% quizzes, 30% additional semester exams, 30% problem solving.
Exam Format: Fill in the blank questions and math questions

RM 4117W Retail Environments and Human Behavior
A-F only, 3 credit(s); prereq 2215 or DHA 2215, [jr or sr or grad student], [DHA major or minor or instr consent ] credit will not be granted if credit already received for: DHA 4117W; Meets CLE req of Writing Intensive;
Instructor: Wu, Juanjuan
Description: Theory and research related to the designed environment across retail channels. Upon completion of this course, students should be able to: -- Analyze the importance of retail environments as stimuli to consumer behavior. -- Develop sensitivity to sustainability issues in retailing. -- Identify, synthesize, and critique research and theories applicable to various retailing formats and environments. -- Design, develop, and conduct original research focusing on retail environments. -- Develop and refine critical writing skills in communicating and disseminating scholarship.

RM 4160H Honors Capstone Project
A-F only, 2 credit(s); prereq Retail merchandising honors;
Instructor: Johnson PhD, Kim KP
Style: 50% Lecture, 10% Discussion. Class Activities
Grading: 50% reports/papers, 40% special projects, 10% class participation.
**RUSS 1101 Beginning Russian I**

5 credit(s); Credit will not be granted if credit has been received for: RUSS 4101;  
**Instructor:** STAFF  
**Description:** The beginning Russian course develops the four basic language skills--speaking, understanding, reading, and writing--in a balanced, highly integrated manner. Students do regularly assigned grammar exercises, listen to CD's, and are required to participate in each class section. Active control of Russian structure is the principal criterion of evaluation.  
**Style:** 30% Lecture. instructor guided oral exercises  
**Grading:** 25% final exam, 70% quizzes, 5% other evaluation. oral exam  
**Exam Format:** fill in, translation to Russian, open-ended response

**RUSS 1101 Beginning Russian II**

5 credit(s); Credit will not be granted if credit has been received for: RUSS 4101;  
**Instructor:** Williams, Denise Elizabeth  
**Description:** This course is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. This course is the first in a two-course sequence on Beginning Russian. Upon completion of the two courses, a student can expect to be able to pronounce Russian words with reasonable correctness; compose grammatically correct, simple, sentences; understand Russian as spoken conversationally; respond appropriately to common requests; and read everyday Russian with the aid of a dictionary. In order to speak Russian effectively, you would need to get practice speaking Russian with others.  
**Style:** This is a printed correspondence section.  
**Grading:** 20% mid exam, 30% final exam, 50% written homework.  
**Exam Format:** Supervised, in-person exams

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
RUSS 3101 Intermediate Russian I
5 credit(s); prereq 1102 or instr consent; Credit will not be granted if credit has been received for: RUSS 4103;
Instructor: STAFF
Description: This course continues the development of the four basic language skills -- speaking, understanding, reading, and writing. Students prepare regularly assigned written exercises, listen to CD's and videos, work with computer instructional programs and participate in class activities. Active control of the language for communication in all modalities is the goal of instruction and the main criterion of evaluation.
Style: 30% Lecture. Instructor guided oral activities
Grading: 30% final exam, 60% quizzes, 10% class participation. Exam Format: fill-in, translation to Russian, open-ended response.

RUSS 3111H Russian Major Project
A-F only, 3 credit(s); prereq Advanced Russian major; Credit will not be granted if credit has been received for: RUSS 3111H;
Instructor: STAFF
Description: This 3-credit course is designed for and required of all students majoring in Russian, except for Honors students (see Russ 3312). It consists of writing a research paper of no less than 20 typed double-spaced pages, under the guidance of two faculty members in the Russian program. Projects are chosen by students in consultation with their faculty advisors. Students have scheduled individual meetings with the advisors. The Director of Undergraduate Studies coordinates all projects, and students should consult her/him before signing up for the course. Projects should show evidence of original thinking, the ability to analyze and present arguments effectively. Unacceptable projects include book reports, plot summaries, or translations. The project should, in some way, be linked to the student's course work within the Russian major, i.e., the student should have some academic background in a particular area of study before undertaking to write a paper in that area. The language of the paper should be English. The paper should present evidence of appropriate use of Russian-language sources.

RUSS 3311 Honors Major Project in Russian
A-F only, 3-4 credit(s); max credits 4, 1 completion allowed; prereq Advanced Russian major; Credit will not be granted if credit has been received for: RUSS 3311;
Instructor: STAFF
Description: This course is designed for and required of all Honors students majoring in Russian. It consists of writing a research paper of no less than 35 typed double-spaced pages, under the guidance of two faculty members in the Russian program. Candidates for summa cum laude need three faculty readers, one of who should be outside the Russian department. Topics are chosen by students in consultation with their faculty advisors. Students have scheduled individual meetings with the advisors. The Director of Undergraduate Studies coordinates all projects, and students should consult her/him before signing up for the course. Projects should show evidence of original thinking, the ability to analyze, and to present arguments effectively. Unacceptable projects include book reports, plot summaries, or translations. The project should, in some way, be linked to the student's course work within the Russian major, i.e., the student should have some academic background in a particular area of study before undertaking to write a paper in that area. The language of the paper should be English. The paper should present evidence of appropriate use of Russian-language sources.
Style: 25% Discussion. guided research
Grading: 100% other evaluation. finished research paper

RUSS 3421 Literature: Middle Ages to Dostoevsky in Translation
3 credit(s); Credit will not be granted if credit has been received for: RUSS 5421; Meets CLE req of Global Perspectives; meets CLE req of Literature;
Instructor: Jahn, Gary R
Description: This is an historical survey of the development of Russian literature from its origins in the tenth century until the onset of the most celebrated period in Russian literary history, that of Realism, in the middle of the 19th century. The course consists of a combination of lecture and class discussions. Students will read a representative sampling of works from various periods. These will include selections from Old Russian Literature (chronicle accounts, hagiographic works, "The Life of Archpriest Avvakum", and others) and from the literature of the 18th century (selections from Lomonosov, Sumarokov, and Karamzin). Approximately three-fifths of the course will be devoted to the literature of the first half of the 19th century. Students will read works by Pushkin, Gogol, Dostoevsky, and Turgenev. All told, required reading amounts to approximately 2,000 pages. Grades in this course are based upon performance on the mid-term and final examinations, on contributions to class discussion, and on the quality of the term paper. The term paper is not required for those enrolled in Russian 3421 but required of those enrolled in Russian 5421.
Style: 50% Lecture. 50% Discussion.
Grading: 30% mid exam, 50% final exam, 20% class participation.

RUSS 3512 Russian Art and Culture
3 credit(s);
Instructor: Walter, Ronald F.
Description: Student may contact the instructor or department for information.

RUSS 3993 Directed Studies
1-4 credit(s); max credits 4, 1 completion allowed; prereq instr consent, dept consent, college consent;
Instructor: STAFF
Description: The purpose of this course, offered at the discretion of the faculty, is to provide individualized instruction to undergraduate students wishing to explore specialized topics not covered in regular course offerings. The number of faculty in the Russian program being small, no more than 3-5 students per year can be thus accommodated; preference is given to students in their final year of completing their major. The content
and procedures of this course vary widely, depending upon agreement between student and instructor, and the number of credits for which the course is taken. Students must consult the Director of Undergraduate Studies in the Russian unit before registering for this course.

RUSS 4101 Beginning Russian I
3 credit(s); prereq Fourth sem course in another language or grad student; Credit will not be granted if credit has been received for: RUSS 1101;
Instructor: Schweikert,Maria S
Description: Student may contact the instructor or department for information.

RUSS 4101 Beginning Russian I
3 credit(s); prereq Fourth sem course in another language or grad student; Credit will not be granted if credit has been received for: RUSS 1101;
Instructor: Walter,Ronald F.
Description: Student may contact the instructor or department for information.

RUSS 4103 Intermediate Russian I
3 credit(s); prereq 4102, [fourth sem course in another language or grad student]; Credit will not be granted if credit has been received for: RUSS 3001;
Instructor: Schweikert,Maria S
Description: Student may contact the instructor or department for information.

RUSS 4103 Intermediate Russian I
3 credit(s); prereq 4102, [fourth sem course in another language or grad student]; Credit will not be granted if credit has been received for: RUSS 3001;
Instructor: Polakiewicz,Leonard Anthony
Description: Student may contact the instructor or department for information.

RUSS 5421 Literature: Middle Ages to Dostoevsky in Translation
3 credit(s); Credit will not be granted if credit has been received for: RUSS 3421;
Instructor: Jahn,Gary R
Description: This is an historical survey of the development of Russian literature from its origins in the tenth century until the onset of the most celebrated period in Russian literary history, that of Realism, in the middle of the 19th century. The course consists of a combination of lecture and class discussions. Students will read a representative sampling of works from various periods. These will include selections from Old Russian Literature (chronicle accounts, hagiographic works, "The Life of Archpriest Avvakum", and others) and from the literature of the 18th century (selections from Lomonosov, Sumarokov, and Karamzin). Approximately three-fifths of the course will be devoted to the literature of the first half of the 19th century. Students will read works by Pushkin, Gogol, Dostoevsky, and Turgenev. All told, required reading amounts to approximately 2,000 pages. Grades in this course are based upon performance on the mid-term and final examinations, on contributions to class discussion, and on the quality of the term paper. The term paper is not required for those enrolled in Russian 3421 but required of those enrolled in Russian 5421.
Style: 50% Lecture, 50% Discussion.
Grading: 30% mid exam, 50% final exam, 20% class participation.

RUSS 5993 Directed Studies
1-4 credit(s), max credits 16, 4 completions allowed; prereq

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Scandinavian
192 Klaeber Court

SCAN 3011 Readings in Scandinavian Languages
4 credit(s); prereq [Dan or Nor or Swed][1004 or 4004] or instr consent;
Instructor: STAFF
Description: The purpose of the Scandinavian 3011 class is to help you improve your reading knowledge and writing skills in your primary Scandinavian language and to build a reading knowledge of the other Scandinavian languages. We will read and screen various texts in Swedish, Norwegian and Danish, and discuss and analyze them, both as a whole class and in smaller groups. You will also write journal entries and short assigned writings, do several in-class presentations, and research, revise and polish a 5-6 page semester paper in your primary Scandinavian language. Among the topics and genres the texts in this course will explore are multi-ethnic and multicultural identity, globalization, social satire, crime fiction, news events of the moment, and currents in life, culture and society in contemporary Denmark, Norway, and Sweden.

SCAN 3504 The Immigrant Experience
3 credit(s); Meets CLE req of Historical Perspectives;
Instructor: Stockenstrom,Goran K
Description: This course will examine a body of experiences related to the process of immigration among the Swedes, Norwegians, and Finns in America. These groups are characterized by a consciousness based on a sense of common origins, reflected by an internal sense of distinctiveness as well as an external perception affirming the latter. The following features will be discussed from a historical and comparative perspective: 1) geographic origin, race and language; 2) patterns of immigration and settlement; 3) shared traditions, values and myth; 4) literature, theater and music; 5) cultural and political institutions that served and maintained the group; 6) and finally the ties which, in the New World, transgressed the old kinship, neighborhood and community boundaries. A selection of oral interviews, letters and diary entries, photos and film clips, samples of stories, novels and plays, has been gathered from a variety of sources. How these ethnic experiences evolve into systems of ideas, becoming gradually more systematic and comprehensive, eventually codified in an extended historical process, will be studied in the context of a body of representative criticism.
Style: 50% Lecture, 50% Discussion.
Grading: 30% reports/papers, 50% special projects, 20% in-class presentation.
Exam Format: Take-home exam; paper (part of project)

SCAN 3505 Scandinavian Fiction From 1890 to Present
3 credit(s);
Instructor: Stockenstrom,Goran K
Description: This course deals with dilemma of representation...
in the 20th century and takes as its starting point the shift at the turn of the century from a mimetic/objective representation anchored in time and space to the subjective presentation of interior realities and the realm of imagination. A representative selection of Scandinavian texts spanning a period of 100 years of revolutionary changes in all domains of human experience, offers the students a depth and breadth of insights into the value patterns and myths of the individual cultures as well as the hegemonies that constitute the Nordic culture. This body of literature serves to illustrate how different Scandinavian authors seek to find new forms for changing historical situations. The different movements in the arts and literatures from the 20th century are reflected with varying emphasis in the evolving aesthetics on the continuum from realism to expressionism. At the same time the dialectical changes in the aesthetic forms cannot be understood without familiarity with the changing social, political and economic realities that in turn caused the former.

Style: 50% Lecture, 50% Discussion.

Grading: 30% reports/papers, 50% special projects, 20% class participation.

Exam Format: Take-home exam. Final covers texts and criticism in the form of essay questions.

SCAN 3634 Scandinavian Women Writers
3 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Literature;
Instructor: Zagar, Monika

Description: Scandinavian Women Writers and the Emancipation

Many of Scandinavia's most important writers have engaged in issues of sexual difference and women's emancipation. The aim of this course is to reflect the discussion of women's emancipation through literary texts, and to discuss the intertwining of progressive thought and literary representation. The concept of emancipation is to be understood in a broad sense: some of these writers demanded political authority and social rights while others were focused on personal and/or sexual freedom. The works that will be brought up are all regarded as landmarks in Scandinavian writing, and will be considered because of their literary qualities as well as their progressive ideas. We will focus on some major women authors, and a couple of male ones, from the 19th century to the present. The course is limited to texts that have been translated into English. Students of Scandinavian will have the possibility to read in the original languages as well. Writers included in the course are: Camilla Collett, Amalie Skram, Selma Lagerlof, Knut Hamsun, Ellen Key, Edith Sodergran, Moa Martenson, Karen Blixen, Kirsten Thorup, Kerstin Ekman, Svava Jakobsdottir, Rosa Liksom. This course is designed for undergraduate students in Scandinavian Literature, Gender Studies and Comparative Literature. Class Time: 60% lecture, 40% discussion

Style: 60% Lecture, 40% Discussion.

Grading: 25% mid exam, 30% final exam, 30% reports/papers, 15% class participation.

Exam Format: Essay-type questions.

SCAN 3670 Topics in Scandinavian Studies: Knut Hamsun
3 credit(s), max credits 9, 3 completions allowed;
Instructor: Zagar, Monika

Description: The aim of this course is to tackle the question of how and why the extraordinary Norwegian novelist Knut Hamsun supported, enthusiastically and to the bitter end, the German occupation of Norway during World War Two (1940-1945). Hamsun was the recipient of the Nobel Prize for Literature in 1920, respected and revered by broad audiences and critics alike in Europe and beyond. At home, Hamsun was the literary and cultural persona par excellence who helped establish the visibility of the new nation of Norway in 1905, after the dissolution of Norway's union with Sweden. In this class we will discuss a range of issues and topics related to Hamsun's art and life, such as literature and politics, national identity and modernity, global mobility and immigration, race and racism, and women's emancipation. We will read several novels by Hamsun. All of our texts will be placed in a social, political, and cultural context. Special attention will be paid to post-1945 re-interpretations of Hamsun's achievements, starting with an examination of the 1996 movie Hamsun. Finally, we will discuss the ideology of Nazism and compare Scandinavian countries' reactions to the events during World War Two. All texts will be in English translation. The course is aimed at undergraduate and graduate students at all levels of Scandinavian, German, English, history, political science and other departments. Graduate students are encouraged to contact the instructor.

SCAN 3993 Directed Studies
1-4 credit(s), max credits 12, 12 completions allowed; prereq instr consent, dept consent, college consent;
Instructor: STAFF

Description: Guided individual reading or study. The student approaches an appropriate professor with a topic of interest, and if the professor has time and is willing to guide the student, the student, along with the professor, fills out a form which is available in the department office (205 Folwell). On this form, they specify the topic, reading and study materials, and form of evaluation.

SCAN 5670 Topics in Scandinavian Studies: Isak Dinesen's Stories & Tales
3 credit(s), max credits 9, 3 completions allowed;
Instructor: Houe, Poulu

Description: World renowned author of the fictional autobiography Out of Africa (adapted by Sidney Pollack into an Oscar-winning movie featuring Meryl Streep and Robert Redford in lead roles) and four major collections of stories and tales, Isak Dinesen/Karen Blixen was an immensely astute and fastidious practitioner of the art of storytelling. Her deeply historical, yet unconventional imagination and mode(s) of narration make her writings a gem for avid readers and literature buffs. While Dinesen/Blixen's background is deeply European, her outlook is colored by indelible life experiences in colonial Africa, and while her visions and artistic devices are informed by layers of cultural tradition and by the canon of world literature, their boundary-crossing range is second to none. Though steeped in tradition and erudition, Dinesen is a modern writer of great consequence, boldly defying received wisdoms about the roles of men and women, gender and sexuality, societal order and individual freedom, religion and society, persona and identity, desire and destiny, to say nothing of irony, humor, and tragedy. The course will explore Dinesen/Blixen's tantalizing life and work in its 20th century socio-cultural context. Close-readings will decode the interplay of history and imagination. A representative selection of Scandinavian texts spanning a period of 100 years of revolutionary changes in all domains of human experience, offers the students a depth and breadth of insights into the value patterns and myths of the individual cultures as well as the hegemonies that constitute the Nordic culture. This body of literature serves to illustrate how different Scandinavian authors seek to find new forms for changing historical situations. The different movements in the arts and literatures from the 20th century are reflected with varying emphasis in the evolving aesthetics on the continuum from realism to expressionism. At the same time the dialectical changes in the aesthetic forms cannot be understood without familiarity with the changing social, political and economic realities that in turn caused the former.
outlook is colored by indelible life experiences in colonial Africa, and while her visions and artistic devices are informed by layers of cultural tradition and by the canon of world literature, their boundary-crossing range is second to none. Though steeped in tradition and erudition, Dinesen is a modern writer of great consequence, boldly defying received wisdoms about the roles of men and women, gender and sexuality, societal order and individual freedom, religion and society, persona and identity, desire and destiny, to say nothing of irony, humor, and tragedy. This course will explore Dinesen/Blixen’s tantalizing life and work in its 20th century socio-cultural context. Close-readings will decode her post-romantic interlacing of history and myth and the intricate functions of narration and style, artist and characters, nature and society within her texts; we will explore their existential, psychological, philosophical, and political affiliations from a variety of perspectives, such as narratology and semiotics, feminist and post-colonial theory. The question of Dinesen/Blixen’s bicultural/bilingual artistic profile will be addressed in the context of reader responses to her work worldwide in the 21st century. Lectures and class discussions will alternate, and so will group work alternate with individual student presentations. Brief orientations about past and current Dinesen/Blixen scholarship will be provided, and film adaptations of two stories will be incorporated as well. In addition to oral contributions in class, two term papers and one final take home essay exam are required; Scan 5670 students will need to utilize at least one secondary source in each of their term papers.

**Style:** 40% Lecture, 10% Film/Video, 50% Discussion.  
**Grading:** 25% final exam, 50% reports/papers, 10% in-class presentation, 15% class participation.

**SCAN 5670 Topics in Scandinavian Studies: Knut Hamsun**

Nobel laureate, Nazi collaborator  
3 credit(s), max credits 9, 3 completions allowed;  
**Instructor:** Zagar, Monika  
**Description:** The aim of this course is to tackle the question of how and why the extraordinary Norwegian novelist Knut Hamsun supported, enthusiastically and to the bitter end, the German occupation of Norway during World War Two (1940-1945). Hamsun was the recipient of the Nobel Prize for Literature in 1920, respected and revered by broad audiences and critics alike in Europe and beyond. At home, Hamsun was the literary and cultural persona par excellence who helped establish the visibility of the new nation of Norway in 1905, after the dissolution of Norway’s union with Sweden. In this class we will discuss a range of issues and topics related to Hamsun’s art and life, such as literature and politics, national identity and modernity, globalization and immigration, race and racism, and women’s emancipation. We will read several novels by Hamsun. All of our texts will be placed in a social, political, and cultural context. Special attention will be paid to post-1945 re-interpretations of Hamsun’s achievements, starting with an examination of the 1996 movie Hamsun. Finally, we will discuss the ideology of Nazism and compare Scandinavian countries’ reactions to the events during World War Two. All texts will be in English translation. The course is aimed at undergraduate and graduate students at all levels of Scandinavian, German, English, history, political science and other departments. Graduate students are encouraged to contact the instructor.

**SCAN 5701 Old Norse Language and Literature**  
3 credit(s);  
**Instructor:** Liberman, Anatoly  
**Description:** Old Norse is like any other language course, with the difference that students are not taught to write or speak the language. In Old Norse (mainly in Old Icelandic) some of the greatest stories and poems of the Middle Ages were recorded. At the end of the year, students will be able to read the sagas, even if slowly and with a dictionary. One semester will give sufficient exposure to those who want to read Old Icelandic on their own, but security will come only in spring. The book to be used is E. V. Gordon's An Introduction to Old Norse. Those who will stay for both semesters will learn a good deal about one of the main Old Germanic languages and about some of the most memorable literatures preserved in Germanic. There will be day to day reading assignments: first very short, in the second semester between two and three pages a week. In the Fall Semester, there will be a midterm and a final. The grade will depend on class participation (40%; regular attendance is crucial), the results of the midterm (25%) and final (35%).

**SCAN 5993 Directed Studies**  
1-4 credit(s), max credits 12, 12 completions allowed;  
**Instructor:** STAFF  
**Description:** Guided individual reading or study. The student approaches an appropriate professor with a topic of interest, and if the professor has time and is willing to guide the student, the student, along with the professor, fills out a form which is available in the department office (205 Folwell). On this form, they specify the topic, reading and study materials, and form of evaluation.

**Scientific Computation**  
6-145 Jackson Hall

**SCIC 8190 Supercomputer Research Seminar**  
1 credit(s), max credits 3, 3 completions allowed;  
**Instructor:** Wentzcovitch, Renata M  
**Description:** Student may contact the instructor or department for information.

**Second Language Studies**  
214 Nolte Center

**SLS 3001W Basics in Teaching English as a Second Language**  
4 credit(s);  
**Instructor:** Wentzcovitch, Renata M  
**Description:** This practical course is designed to prepare you to tutor ESL to adults in community programs by providing you with a basic orientation to current theories, methods and techniques of English as a second language (ESL) instruction. Through lecture/demonstrations, discussions and practice teaching, the course emphasizes the methodologies and techniques for teaching and assessing the skills of listening, speaking, pronunciation, reading, and writing. Your reading and classroom lectures will provide you with an introduction to the phonological and syntactic systems of English. In addition, you will study the language learning processes of adults, considering the linguistic, psychological and socio-cultural factors which influence the process. You will learn something about the language and culture of immigrant groups currently residing in the Twin Cities, including Hmong, Somali, and Hispanic languages and cultures. You will become aware of the interrelationship of language and culture and how that influences learning. The various contexts of teaching English to literate and non-literate adults in the U.S. and abroad will be addressed. As you read and discuss these issues in class, you will observe ESL classes taught at the University and in the Twin Cities. An internship at a school or agency teaching ESL is required. The class will support the internship experience as you and your fellow students analyze the instructional settings and your teaching practices during the week.  
**Style:** 30% Lecture, 40% Discussion, 30% Laboratory.  
**Grading:** 30% reports/papers, 15% quizzes, 15% in-class presentation, 15% class participation, 25% other evaluation.  
**Exam Format:** short answer essay

**SLS 3501 Practical Language Learning for International Communication**  
3 credit(s);  
**Instructor:** Cohen, Andrew David
Description: Going to study abroad to learn a new language and culture, or have you just returned from such an experience? What are your strengths as a language learner? This course is all about getting a better handle on language learning? having a better sense of your own learning style preferences and language strategy preferences for a given language-learning or language-use task. During the course, you also explore your motivation to learn languages in general and a given language in particular, and your motivation to do specific language tasks. Ideally, the course not only makes you aware of yourself as a language learner, but also enhances your ability to succeed at learning and using languages now and in the future, at home and abroad. The objectives of the course are: (1) to provide you a better sense of what it means to learn a new language, (2) to engage you fully in diagnosing your own learning style preferences, language strategy repertoire, culture learning strategies, and motivation when performing language tasks (through completion of a series of inventories), (3) to have you conduct empirical data collection with three language learners of you choosing, as a means of improving your ability to diagnose others? language learning abilities, practices, and potential, and (4) to have you participate in a series of classroom exercises intended to simulate real language learning and performance situations, and to have you reflect in pairs, in small groups, and in whole-class discussions regarding what you have gained from these activities. The topics include: (a) second language (L2) learning: popular ideas, explaining the process, describing learner language, and individual differences in L2 learning, (b) learning styles, (c) language learner motivation, (d) cultural values and culture, (e) strategies in the language skill areas: listening, speaking, reading, writing, grammar learning, vocabulary, translation, and nonverbal communication, (f) describing approaches to L2 teaching and learning in the classroom, and (g) revisiting popular ideas about L2 language learning. Maximum of 50 students; presentations by the instructors and by teams of students, discussion, interactive exercises, extensive small group work, and use of WebVista.


Style: 20% Lecture, 30% Discussion, 20% Small Group Activities, 20% Student Presentation, 10% Guest Speakers. Group tasks, groups of 2-3 will lead a portion of the class sessions.

Grading: 50% reports/papers, 30% quizzes, 5% attendance, 10% in-class presentation, 5% class participation.

Exam Format: Short-answer questions - on 3 quizzes, no exam.

SLS 5721 Methods in Teaching English as a Second Language
3 credit(s); prereq Ling 3001 or 5001 or instr consent; Instructor: Lazaraton, Anne
Description: This course provides a broad introduction to the field of Teaching English as a Second Language, with a special focus on teaching ESL to adults at the college or university level. Students will: 1) Examine a number of approaches to language teaching, both traditional and innovative; 2) Review current practices in the teaching of the component language skills (listening, speaking, reading, writing) as well as grammar and vocabulary; 3) Examine current approaches to teaching these skills in ESL/EFL texts and classroom materials; 4) Discuss learner needs based on proficiency level as well as linguistic and cultural background; and 5) Overview skills for teachers, including lesson planning, materials selection and evaluation, technology use, language assessment and test evaluation, and professional development. Students will be required to complete a number of homework assignments, observe several ESL classes, write a publishable quality ESL materials review, and prepare a presentation of some aspect of the TESOL profession. Finally, students will write a language learning autobiography and a reflective statement to be included in a portfolio of course work to be submitted at the end of the semester. This course is designed for graduate students and undergraduates with some language teaching experience; other undergraduates should consider SLS 3001W, offered during the Fall and Spring semesters of every year.

Style: 20% Lecture, 80% Discussion.

Grading: 40% reports/papers, 40% written homework, 10% in-class presentation, 10% class participation.

SLS 5724 Intro to Language Assessment
A-F only, 3 credit(s); Instructor: Cohen, Andrew David
Description: This course deals with the principles and practice of assessing second or foreign language (L2) learning by adults. This means that focus is on classroom assessment of adult ESL learners, as well as on assessment of learners of other languages. While the course has no prerequisites, it assumes that you have some familiarization with the field of second language teaching and learning. The real purpose of the course is for you to learn what tests are all about and to be encouraged to want to construct them when needed, and with benefit to the learners and to you as teacher if you are in that role. SPECIFIC GOALS OF THE COURSE: To keep a balance between the course instructors as provider of information and the students in this course as individuals engaged in productive self-discovery: selective presentations by the instructor; dealing with issues such as: a distinctive-feature analysis of test items, the strategies used in responding to test items and procedures, creative ways to assess learners? performance in L2 pragmatics, graduate-student presentations on nine selected topics (see below), with assistance from undergrads, scrutiny of test items and tests, graduate work during class exercises, collaborative student test-construction projects. ?For you as a test user: to become a more critical consumer of L2 measures, to identify and select assessment procedures appropriate for a given purpose, tapping the desired skills, for learners at the given ability level. ?For you as a test constructor: to learn how to write more effective test items and tasks for measuring both global ability and ability in specific skill and language-content areas, to tackle head on the challenge of making test items both a good measure, beneficial, and even fun experience for language learners? e.g., by: making the assessment process engaging enough so that learners have a genuine incentive to review the material, providing useful feedback to learners as to what they know and don't know, providing for the instructor (you or someone else) knowledge as to what has been learned and what hasn't. ?To make you more aware of the strategies that learners use in responding to a test, with an eye to test validity. ?To demystify...
and harness some basic statistical concepts, making use of a
test analysis program, Lertap 5. To have the assigned readings
reinforced both by pre-reading questions and by
student-generated questions as well. Course activities: ?Reading
sections of a popular textbook on the topic by Doug Brown,
?Reading selected writings of language assessment experts,
?Doing a series of tasks involving assessment measures,
?Constructing and evaluating a language assessment measure
collaboratively, with the final term paper being a write up of the
project results.
Style: 10% Lecture, 20% Discussion, 20% Small Group
Activities, 40% Student Presentation, 10% Web Based.
Grading: 30% reports/papers, 25% written homework, 10%
attendance, 15% in-class presentation, 10% class participation,
10% other evaluation.

SLS 5805 Basics of Second Language Acquisition for Teachers
3 credit(s); prereq LING 3001 or 3001H or 5001 or instr
consent ;
Instructor: Tarone, Elaine E
Description: Students will learn the basic findings of research
on second language acquisition, and work with video clips of
language learners to explore the characteristics of their learner
language, and reflect on implications of that exploration, both for
SLA theory and pedagogy. Students will carry out a case study
of one language learner.
Style: 15% Lecture, 25% Film/Video, 25% Discussion, 35%
Laboratory.
Grading: 40% special projects, 60% laboratory evaluation.

SLS 5993 Directed Studies
1-4 credit(s), max credits 9, 9 completions allowed; prereq
instr consent, dept consent, college consent ;
Instructor: STAFF
Description: In order to obtain Directed Studies credit through
tESL 5993, students must fill out a Student/Faculty Contract for
Directed Study. On the form, the student indicates the title of the
project, the number of desired semester credits (1-4), the learning
objectives associated with it, methods and resources to be used
(books, articles, etc.), and also indicate how the results of the
project will be evaluated. Then a Faculty Member for ESL must
approve it and sign as the supervisor for the project. Forms are
available in the department office.

Security Technologies
West Bank Office Building

ST 8111 Methods, Theory, and Applications
A-F only, 2 credit(s);
Instructor: Isle, Brian Archer
Description: Student may contact the instructor or department
for information.

ST 8112 Technology for Homeland Security
A-F only, 2 credit(s);
Instructor: Polla, Dennis L
Description: Student may contact the instructor or department
for information.

ST 8221 Communications of Risk and Security
A-F only, 1 credit(s); prereq MSST grad student;
Instructor: Spack, Raymond Joseph
Description: Student may contact the instructor or department
for information.

ST 8331 Dynamic Systems Modeling and Simulation Tools
A-F only, 2 credit(s);
Instructor: Kennedy, Shaun Patrick
Description: Student may contact the instructor or department
for information.

ST 8441 Internship (optional)
A-F only, 0.5 credit(s), max credits 1;
Instructor: Isle, Brian Archer
Description: Student may contact the instructor or department
for information.

ST 8511 Public Policy
A-F only, 1 credit(s);
Instructor: Kuzma, Jennifer
Description: Student may contact the instructor or department
for information.

Social Work
105 Peters Hall

SW 1905 Freshman Seminar: Images of Youth
2 credit(s), max credits 6; prereq Fr;
Instructor: Baizerman, Michael Leon
Description: A course on "images of youth" can be about the
many actual and possible representations of young people. As
such, a course would examine a variety of notions about youth,
the actual persons and "youth" the representation. Examination
could be about the personal, social, and cultural spaces
between actual (young) persons and their images and other
representations, and how these vary (or not) by historical period,
social arena, "true self", ethnicity/race, geography, social class,
sex/gender, language, and the like. Attention could be given to
how these representations are (are not) embedded in larger
reticula of scientific and lay theories of these people, their "stage
of life", what is "natural" about their being as they are and doing
as they do and what is "essential" (and/or the essence) of their
person(hood) and of the images which portray them in the
popular media, in scientific theories, in novels, films and plays,
and in music, poetry, and art, for instance. This seminar will
explore some of these and some other related themes in pursuit
of responses to the focal questions of this course: How are youth
portrayed in a variety of media; how are they represented, and
what are some images of youth which seem to guide our
collective and individual responses to real world, everyday-life
youth, and how are these images used by young people and
adults to fashion their multiple identities in everyday life and in
the reflective, personal self. In the University, "youth" is a subject
(and object) "owned" by many academic disciplines and
professions, and there can be (and is) disagreement between
and among these about "the true nature" of these persons, the
best ways to "enhance their healthy development" and to
facilitate their "growing up" and "coming of age", and their
place(s) within family, neighborhood, community, and nation.
That is, "youth" is "contested terrain" and the vocabulary and
rhetorics of this ongoing, but always changing (somewhat) "youth
discourse" will also be a focus of this course. Framed thus, it is
clear that there are a vast array of traditional disciplines and
professions contributing theories, concepts and images to our
subject. Any one of these can invite life-long inquiry and many
will be new to you. That's inevitable and fine, because while you
are experts in how you did (are doing) your youth, you are not
expected to be so on the many ways you are represented in our
culture and society. Indeed, that's why we are together in this
Seminar - to explore and try to understand how (and why) youth
are portrayed as they are. By the end of our work together, we
both will have a better grasp of the issues, questions, responses,
and answers.
Style: 30% Lecture, 10% Film/Video, 40% Discussion. 20%
Field Visits.
Grading: Grading is finalized after negotiated
assignments/papers.

SW 2501W Introduction to Social Justice
A-F only, 4 credit(s); Meets CLE req of Writing Intensive;
Instructor: Albrecht, Lisa D
Description: This course is the first of three required courses
that are part of the new interdisciplinary, cross-college
undergraduate minor in Social Justice. In this course, we will
focus on the meanings of social justice by looking at three key
socio-political areas of study: globalization, criminal justice and

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
social welfare. We will also look at how various activists from these arenas work for social change, and finally we will engage in community-based education (service learning) where we will volunteer in social justice organizations locally. Given the dilemmas we face on this planet regarding our survival as culturally diverse people, social justice is a fitting subject for us to explore. As we become more proficient analytical thinkers and writers, perhaps we will also become more knowledgeable citizens, more competent communicators, and people who can make the world a better place for all human beings. Living in a democracy means that we, as citizens, have a great deal of responsibility. By looking at the meanings of social justice and at how different people and organizations work for social justice, we will explore how activism is deeply connected to citizenship and democracy. Another major goal of this course is to create a community of learners in our classroom. In forming this environment, students should be prepared to be active in class. Since this is not a lecture class, we will spend most of our classroom time together talking with each other. Listening to each other, and learning to give constructive feedback will allow our community to flourish, and will give each of us individually new perspectives on our own writing and thinking processes. The course is planned carefully, especially the community based learning experiences. Please don’t fall behind; the sequence of readings and activities are meant to be done in the order I’ve assigned them.

SW 2501W Introduction to Social Justice
A-F only, 4 credit(s); Meets CLE req of Writing Intensive; Instructor: Fish, Robert
Description: This course is the first of three required courses that are part of the new interdisciplinary, cross-college undergraduate minor in Social Justice. In this course, we will focus on the meanings of social justice by looking at three key socio-political areas of study: globalization, criminal justice and social welfare. We will also look at how various activists from these arenas work for social change, and finally we will engage in community-based education (service learning) where we will volunteer in social justice organizations locally. Given the dilemmas we face on this planet regarding our survival as culturally diverse people, social justice is a fitting subject for us to explore. As we become more proficient analytical thinkers and writers, perhaps we will also become more knowledgeable citizens, more competent communicators, and people who can make the world a better place for all human beings. Living in a democracy means that we, as citizens, have a great deal of responsibility. By looking at the meanings of social justice and at how different people and organizations work for social justice, we will explore how activism is deeply connected to citizenship and democracy. Another major goal of this course is to create a community of learners in our classroom. In forming this environment, students should be prepared to be active in class. Since this is not a lecture class, we will spend most of our classroom time together talking with each other. Listening to each other, and learning to give constructive feedback will allow our community to flourish, and will give each of us individually new perspectives on our own writing and thinking processes. The course is planned carefully, especially the community based learning experiences. Please don’t fall behind; the sequence of readings and activities are meant to be done in the order I’ve assigned them.

SW 2501 Introduction to Child Maltreatment: Intervention and Prevention
3 credit(s);
Instructor: STAFF
Description: This course is designed as an introduction to the study of family violence across the lifespan. It will introduce students to history, current theories, research, and policies in the areas of child maltreatment and the larger domain of family violence. The content of the course focuses on current theories, research and policies on violence against women (battering, sexual assault, stalking), child maltreatment (physical and sexual abuse, emotional abuse, neglect) and abuse of vulnerable adults (elderly, non-elderly vulnerable populations). This course is an introduction to the topic. It will give students a basic overview of the issues across types of family violence intervention and prevention and how societies have responded through public policy. The course will also integrate issues of gender, race, culture, age, physical ability, and sexual orientation throughout our examination of these topics. This course is designed to meet the social science diversified core requirement of the University’s Liberal Education Requirement. There are no prerequisites for this course, it is open to all undergraduates and serves as the first required course in the Family Violence Prevention Minor. Other required courses in the Minor cover prevention, intervention and gender violence in global perspectives. As such, this course will emphasize theories, research and policies with a focus on family violence against child and adults in North America.
Style: 25% Lecture, 10% Film/Video, 25% Discussion, 10% Demonstrations, 10% Guest Speakers
Grading: 15% mid exam, 20% final exam, 10% special projects, 20% written homework, 15% reflection paper, 20% class participation. Written Homework=online assignments.

SW 3702 Introduction to Adult Intimate Partner Violence: Intervention and Prevention
3 credit(s);
Instructor: STAFF
Description: This course is designed as an introduction to the study of Intimate Partner Violence (IPV) in the adult population. It will introduce students to current theories, research, and prevention practice in the area of family violence. The content of the course focuses on the intervention and prevention of intimate partner violence, including preventing violence against women (battering, sexual assault, stalking) and abuse of vulnerable adults (elderly, non-elderly vulnerable populations) within the United States. A major emphasis in this course will be on prevention of adult IPV and social interventions aimed at ending violence in families once it occurs. This includes direct work with victims of abuse, assailants, and their families as well as community-level and policy interventions. The course will also integrate issues of gender, race, culture, age, physical ability, socio-economic status, and sexual orientation throughout our examination of these topics. This course is open to all undergraduates and serves as a required course in the Family Violence Prevention Minor. Because other required courses in the Minor cover child maltreatment and gender violence in global perspectives, this course will emphasize prevention and
intervention practices with a focus on family violence against adults in North America.

**Style:** 15% Lecture, 15% Film/Video, 20% Discussion, 20% Small Group Activities, 5% Student Presentation, 10% Guest Speakers, 15% Service Learning.

**Grading:** 25% reports/papers, 10% special projects, 30% reflection paper, 10% in-class presentation, 5% class participation. 20% is Service Learning

**SW 3703 Gender Violence in Global Perspective**

3 credit(s);

**Instructor:** STAFF

**Description:** This course examines gender violence in its multiple forms from a global perspective. An introduction to the history of violence against women, current theories and research on the causes of violence in intimate relationships, past and current responses, and interventions and prevention models to address this worldwide problem will be discussed. Understanding the multiple approaches for addressing gender violence will provide students the knowledge to describe culturally competent intervention and prevention strategies.

**Style:** 20% Film/Video, 25% Discussion, 15% Small Group Activities, 15% Field Trips, 25% Guest Speakers.

**Grading:** 50% reports/papers, 25% attendance, 25% reflection paper.

**SW 4693 Directed Studies**

1-10 credit(s), max credits 10, 1 completion allowed; prereq instr consent;

**Instructor:** LaLiberte PhD, Traci Lee

**Description:** Student may contact the instructor or department for information.

**SW 5051 Human Behavior and the Social Environment**

A-F only, 2-3 credit(s), max credits 3, 1 completion allowed; prereq Grad student or 8 cr social sciences or instr consent;

**Instructor:** Van Slyke, Victoria D

**Description:** Student may contact the instructor or department for information.

**SW 5051 Human Behavior and the Social Environment**

A-F only, 2-3 credit(s), max credits 3, 1 completion allowed; prereq Grad student or 8 cr social sciences or instr consent;

**Instructor:** Kvinick, Helen Quintessa

**Description:** Student may contact the instructor or department for information.

**SW 5101 Historical Origins and Contemporary Policies and Programs in Social Welfare**

A-F only, 3-4 credit(s), max credits 4, 1 completion allowed; prereq Grad or 8 sem cr of social sciences;

**Instructor:** Morrissey, Megan Harrison

**Description:** Student may contact the instructor or department for information.

**SW 5314 Social Work in the Schools**

2 credit(s); prereq Grad or non-degree seeking student or instr consent;

**Instructor:** Lowry, Kathleen Mary

**Description:** Student may contact the instructor or department for information.

**SW 5810 Seminar: Special Topics**

2 credit(s), max credits 10, 3 completions allowed;

**Instructor:** Frenzel, Mark Gregory

**Description:** Student may contact the instructor or department for information.

**SW 5811 Social Work Ethics**

2 credit(s); prereq credit will not be granted if credit received for: 8801, grad student or non-degree seeking student or instr consent;

**Instructor:** Jones, Linda E

**Description:** Student may contact the instructor or department for information.

**SW 8010 Seminar: Field Practicum I**

S-N only, 1-8 credit(s), max credits 8; prereq 8201;

**Instructor:** Morcomb, Denise Charlot

**Description:** Student may contact the instructor or department for information.

**SW 8010 Seminar: Field Practicum I**

S-N only, 1-8 credit(s), max credits 8; prereq 8201;

**Instructor:** Maxwell, Steve

**Description:** Student may contact the instructor or department for information.

**SW 8010 Seminar: Field Practicum I**

S-N only, 1-8 credit(s), max credits 8; prereq 8201;

**Instructor:** Gilbert, MJ

**Description:** Student may contact the instructor or department for information.

**SW 8020 Field Practicum II**

S-N only, 1-6 credit(s), max credits 6; prereq 8010;

**Instructor:** Dimock, Peter Trier

**Description:** Student may contact the instructor or department for information.

**SW 8020 Field Practicum II**

S-N only, 1-6 credit(s), max credits 6; prereq 8010;

**Instructor:** Morcomb, Denise Charlot

**Description:** Student may contact the instructor or department for information.

**SW 8020 Field Practicum II**

S-N only, 1-6 credit(s), max credits 6; prereq 8010;

**Instructor:** Gilbert, MJ

**Description:** Student may contact the instructor or department for information.

**SW 8020 Field Practicum II**

S-N only, 1-6 credit(s), max credits 6; prereq 8010;

**Instructor:** Van de Berg, Anne Wellington

**Description:** Student may contact the instructor or department for information.

**SW 8020 Field Practicum II**

S-N only, 1-6 credit(s), max credits 6; prereq 8010;

**Instructor:** Walthour, Kate Ann

**Description:** Student may contact the instructor or department for information.

**SW 8030 Advanced Standing Social Work Practicum**

S-N only, 1-8 credit(s), max credits 8; prereq Adv standing;

**Instructor:** Morcomb, Denise Charlot

**Description:** Student may contact the instructor or department for information.

**SW 8030 Advanced Standing Social Work Practicum**

S-N only, 1-8 credit(s), max credits 8; prereq Adv standing;

**Instructor:** Maxwell, Steve

**Description:** Student may contact the instructor or department for information.

**SW 8030 Advanced Standing Social Work Practicum**

S-N only, 1-8 credit(s), max credits 8; prereq Adv standing;

**Instructor:** Gilbert, MJ

**Description:** Student may contact the instructor or department for information.

**SW 8030 Advanced Standing Social Work Practicum**

S-N only, 1-8 credit(s), max credits 8; prereq Adv standing;

**Instructor:** Van de Berg, Anne Wellington

**Description:** Student may contact the instructor or department for information.
Description: Student may contact the instructor or department for information.

SW 8041 Specialized Field Placement  
S-N only, 3-4 credit(s); prereq 8030, MSW adv-standing;  
Instructor: Maxwell, Steve  
Description: Student may contact the instructor or department for information.

SW 8051 Psychopathology and Social Work Practice  
A-F only, 3 credit(s); prereq All foundation courses for full program or advanced standing or instr consent;  
Instructor: Perry, Dave  
Description: Student may contact the instructor or department for information.

SW 8051 Psychopathology and Social Work Practice  
A-F only, 3 credit(s); prereq All foundation courses for full program or advanced standing or instr consent;  
Instructor: Keefe, Daniel A  
Description: Student may contact the instructor or department for information.

SW 8051 Psychopathology and Social Work Practice  
A-F only, 3 credit(s); prereq All foundation courses for full program or advanced standing or instr consent;  
Instructor: Kent, Joshua M  
Description: Student may contact the instructor or department for information.

SW 8051 Psychopathology and Social Work Practice  
A-F only, 3 credit(s); prereq All foundation courses for full program or advanced standing or instr consent;  
Instructor: Aby, Martha Jane  
Description: Student may contact the instructor or department for information.

SW 8052 Resilience and Risk  
A-F only, 3 credit(s); prereq [Foundation coursework, adv standing] or instr consent;  
Instructor: Gilgun, Jane F  
Description: Student may contact the instructor or department for information.

SW 8201 Social Work Methods: Practice With Individuals and Systems  
A-F only, 3 credit(s); prereq MSW student;  
Instructor: Dimock, Peter Trier  
Description: Student may contact the instructor or department for information.

SW 8201 Social Work Methods: Practice With Individuals and Systems  
A-F only, 3 credit(s); prereq MSW student;  
Instructor: Rooney, Ronald H  
Description: Student may contact the instructor or department for information.

SW 8201 Social Work Methods: Practice With Individuals and Systems  
A-F only, 3 credit(s); prereq MSW student;  
Instructor: Gonzalez, Christina Marie  
Description: Student may contact the instructor or department for information.

SW 8301 Advanced Child Welfare Practice  
A-F only, 3 credit(s); prereq All foundation courses for full program or advanced standing or instr consent;  
Instructor: Rooney, Ronald H  
Description: Student may contact the instructor or department for information.

SW 8303 Advanced Mental Health Practice with Adults  
A-F only, 3 credit(s); prereq 8051 or Concurrent registration is required (or allowed) in 8051 or all foundation courses for full program or advanced standing or instr consent;  
Instructor: Gibson, Priscilla A  
Description: Student may contact the instructor or department for information.
SOC 1001 Introduction to Sociology
4 credit(s); prereq Soc majors/minors must register A-F; Credit will not be granted if credit has been received for: SOC 1011V; Meets CLE req of Social Sciences;
Instructor: Gerteis, Joseph Howard
Description: This course is an introduction to the field of sociology. Sociology is the study of human actions and social relations, and the broader patterns of social order that result from them. The course is organized in three parts: we first study social identity and interaction, then how social institutions shape the world we live in. The final section of the course is devoted to understanding how the social world changes. The course involves lecture and lab/discussion sections. Lectures are designed to introduce you to the central ideas and theories of the field and to extend and develop the concepts introduced in reading. Labs allow smaller groups to discuss and apply these ideas more concretely.
Style: 60% Lecture, 10% Discussion, 10% Laboratory.
Grading: 50% mid exam, 30% final exam, 5% quizzes, 5% attendance, 10% class participation.

SOC 1001 Introduction to Sociology
4 credit(s); prereq Soc majors/minors must register A-F; Credit will not be granted if credit has been received for: SOC 1011V; Meets CLE req of Social Sciences;
Instructor: Liebler, Carolyn
Description: In this course, the student is encouraged to develop his or her sociological imagination and to apply it to the world around us. In the first section of the semester, we focus on ways in which culture, socialization, social interactions, and social control affect our day-to-day lives. Then we investigate the impacts of four key master statuses: social class, gender, race, and living as an American. These master statuses have fundamental but sometimes subtle effects on the opportunities and constraints that each of us face. In the final section of the course, we focus on a variety of other aspects of the social world (family, education, and globalization, for example) to further understand how personal troubles can be seen and analyzed as public issues using core theories and the student's sociological imagination.
Style: 50% Lecture, 10% Film/Video, 30% Discussion, 10% Small Group Activities.
Grading: 16% mid exam, 16% final exam, 24% reports/papers, 16% additional semester exams, 14% class participation, 14% laboratory evaluation.
Exam Format: Multiple choice questions, short answer, and short essay

SOC 1001 Introduction to Sociology
4 credit(s); prereq Soc majors/minors must register A-F; Credit will not be granted if credit has been received for: SOC 1011V; Meets CLE req of Social Sciences;
Instructor: Pellow, David
Description: Student may contact the instructor or department for information.

SOC 1011V Honors: Introduction to Sociology
4 credit(s); prereq honors; Credit will not be granted if credit has been received for: SOC 1001; Meets CLE req of Social Sciences; meets CLE req of Writing Intensive;
Instructor: Pellow, David
Description: This course emphasizes the scholarly study of human societies, social behavior, and institutions with an emphasis on understanding the world around us and how ordinary people can affect change. The course will focus on sociology theories, concepts, methods, and research findings.
Style: 70% Lecture, 10% Film/Video, 10% Discussion, 10% Small Group Activities. There are discussion sections with
teaching assistants, which will help students better understand the course material.

**Grading:** 20% mid exam, 30% final exam, 10% quizzes, 10% attendance, 20% reflection paper, 10% class participation.

**Exam Format:** A mixture of short answer questions, matching, and essay questions.

**SOC 1571 Sociology**

A-F only, 3 credit(s); prereq Concurrent registration is required (or allowed) in MATH 1161 Only.

Rochester-admitted students will be able to enroll in this course.; Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core;

**Instructor:** Dingel, Molly J.

**Description:** Student may contact the instructor or department for information.

**SOC 3090 Topics in Sociology: New Global Economy**

3 credit(s), max credits 6; prereq Soph or above or instr consent; 1001 recommended; soc majors must register A-F;

**Instructor:** Schurman, Rachel

**Description:** Did you ever wonder why so many of the items you buy at Target come from China or why a financial crisis that started on Wall Street has rotted in U.S. mortgage securities affected countries around the world? Why is the U.S. auto industry, once a motor of economic growth for the country and a key source of class mobility for many working class Americans, practically a thing of the past? This course will focus on the changes that have taken place in the global economy over the last sixty or so years, and the economic theories, institutional changes, and technological developments that have undergirded them. More concretely, we will examine the movement away from relatively regulated national economies and the rise of neoliberal ideology and policy. Among the substantive topics we will explore are the emergence of China as an economic powerhouse, the transformation of work associated with economic globalization, the changing culture(s) of capitalism, the Walmart phenomenon (in all its complexity), and the recent global financial crisis. Grades will be based on class attendance and active participation (20%), regular commentaries on the readings (20%), student research projects/exercises (35%), and a final exam (25%).

**Style:** 40% Lecture, 10% Film/Video, 30% Discussion, 5% Guest Speakers. 15% Large and Small Group Activities

**Grading:** 25% final exam, 35% special projects, 20% class participation. 20% commentaries

**Exam Format:** The exam will include term definitions, some short answer questions, and two longer essay questions.

**SOC 3101 Introduction to the American Criminal Justice System**

A-F only, 3 credit(s); prereq Soc majors/minors must register A-F; Meets CLE req of Civic Life and Ethics; meets CLE req of Social Sciences;

**Instructor:** Page, Joshua A

**Description:** This course examines the basic concepts and theories sociologists use to describe and explain social stratification and inequality. Our empirical attention will be given to the causes, dimensions, and consequences of inequality in America, as well as on cross-national patterns around the globe. The textbook for the class is "Social Stratification and Inequality: An Introductory Sociology Perspective" by Harold Kertby. Lectures and quizzes will cover the contents of selected chapters of the text. In addition, each student will carry out a study project in which to conduct interviews with or observations on two families, and the student's term paper is to report and analyze the findings from this study about the relative stratification positions of these two families. Course grade is based on the quizzes (50%) and the term paper (50%).

**Grading:** 40% reports/papers, 10% special projects, 50% quizzes. 10% "Special Projects" is for a study outline of 1-2 pages.

**Exam Format:** No exam. But each quiz is one page of 5 T/F or multiple-choice questions.
SOC 3211W American Race Relations
A-F only, 3 credit(s); prereq Soc majors/minors must register A-F; meets CLE req of Diversity and Soc Justice US; meets CLE req of Social Sciences; meets CLE req of Writing Intensive;
Instructor: Logan, Enid Lynette
Description: This course is designed to provide you with an understanding of the contours of race in the post-civil rights era United States. Our goal is to examine the myriad ways that race structures American society and influences the experiences and life chances of all its members. In the opening sections of the class, we study definitions of race and major theories of how race and racism work in the contemporary U.S. The next unit begins with an overview of the concept of racial identity, and asks how social location impacts one’s identity and daily interactions. After inquiring into the general processes of identity formation, we look at the specific experiences of whites, African Americans, Asian Americans, Latinos, Native Americans, and multiracial Americans. Though our central focus is on race relations in today’s society, we also provide a historical overview of the experiences of each group in order to help explain their present-day social status. The next part of the course examines the significance of race in several specific contexts. We look at controversies over race and immigration, race and education, and race and popular culture. We close the class by considering the future of race relations in the U.S., and evaluating remedies to racial inequality.
Style: 35% Lecture, 15% Film/Video, 45% Discussion.
Grading: 30% final exam, 45% reports/papers, 20% in-class presentation, 20% class participation.

SOC 3251W Sociological Perspectives on Race, Class, and Gender
A-F only, 3 credit(s); prereq Soc majors/minors must register A-F; Credit will not be granted if credit has been received for: AFRO 3251W; Meets CLE req of Diversity and Soc Justice US; meets CLE req of Social Sciences; meets CLE req of Writing Intensive;
Instructor: Logan, Enid Lynette
Description: In this course, we examine race, class and gender as bases of identity, stratification, and inequality. We explore the social construction of our core concepts in the contemporary U.S., asking how they shape each of our lives, life-chances, and daily interactions. We will divide our time between lecture, small and large group discussion, and viewing segments of documentary films. This is a writing-intensive course, and students will be expected to do a good deal of formal and informal writing. Participation in discussion and engagement with the ideas is a must. In this class, you will connect the concepts drawn from the materials to your own life experiences and thoughts about the world, and learn from the experiences and thoughts of others. In the first weeks of the class, we examine the social construction of Race, Class, Gender and Sexuality in American society. We then move to look at the workings of these concepts in different interpersonal and institutional settings. These include the Labor Force, Schools, the Family, the Criminal Justice System, understanding Violence, and the politics of Language. In the last week of the class we discuss individual and corporate approaches to overcoming injustice.
Style: 30% Lecture, 20% Film/Video, 50% Discussion.
Grading: 55% reports/papers, 10% quizzes, 15% in-class presentation, 20% class participation.
Exam Format: TF and essay

SOC 3415 Consume This! The Sociology and Politics of Consumption
A-F only, 3 credit(s); prereq 1001 recommended; soc majors/minors must register A-F;
Instructor: Gowans, Teresa
Description: The materials in this class will give students a multifaceted picture of contemporary consumer society. Topics may include the following: the historical roots of mass consumption, the politics and consequences of automobile-based transport, the commercialization of childhood, lifestyle marketing and branding, the industrialization of food production and the organic food movement, consumer politics and anti-consumption activism, the rise of consumer credit, and the commodification of deviance and dissent.
Style: 30% Lecture, 10% Film/Video, 20% Discussion, 40% Small Group Activities. My teaching style emphasizes active learning - I aim for high student participation, with lots of wide-ranging (and inter-disciplinary) discussion and energetic group work. The class may not suit those who prefer highly structured classes.
Grading: Grade: 40% exams & quizzes. 40% Official Blog Entries and Zine Preparation. 20% class citizenship, blog citizenship. Each absence after three will decrease your grade by .2. E.g. 3.3 > 3.1 (B+ > B)

SOC 3613W Food, Culture, and Society
A-F only, 3 credit(s); prereq Soc majors/minors must register A-F; Credit will not be granted if credit has been received for: GLOS 3613W; Meets CLE req of Global Perspectives; meets CLE req of Social Sciences; meets CLE req of Writing Intensive;
Instructor: Schurman, Rachel
Description: Hamburbers and a Coke, rice and beans, collard greens, wonton soup, creme brulee? What meanings and feelings do these foods conjure up, and for whom? Where are their key ingredients produced? Who prepares these dishes, and who eats them? This course is built on two key premises: first, that the production, distribution, and consumption of food involves relationships among different groups of people, and second, that one can gain great insights into these social relations and the societies in which they are embedded through a sociological analysis of food. Among the themes this course will explore are the different cultural and social meanings attached to food; class and diet; food, culture and body image; the industrialization of agriculture; the global food economy; the debate over genetically modified food; and movements toward a more sustainable agriculture. The general objective of this course is to teach you how to view the world of food and agriculture from a sociological perspective. A more specific objective is to get you to think analytically about something that is so ?everyday? that most of us take it for granted: where our food comes from, why we eat the way (and what) we do, and the kind of social relationships involved in our encounters with food. Students can expect to read between 40-70 pages a week (of interesting reading!), produce one short paper and one longer (12-15 page) research paper on a course-related topic, and participate in several out-of-classroom exercises (which will include some write-up) during the course of the semester. The course is heavily discussion based, and active participation is required.

SOC 3701 Social Theory
A-F only, 4 credit(s); prereq 1001 recommended; soc majors/minors must register A-F;
Instructor: Broadbent, Jeffrey Praed
Description: Theories describe general principles about how the world works. This is true for theories in physics and biology as well as in sociology or economics. Theories are not always right, but at least they encourage us to think about the bigger picture, beyond the narrow circle of our personal lives. And sometimes theories are right, and give us reliable instruction about the world. One job of science is to find out which theories are right by testing them against evidence. Because social life is complicated, sociological theories can never be as exact as those of physicists. But good social theories can help us understand our social world in new and helpful ways. In this class, we cover the development of social theory from the classical and founding works of Marx, Durkheim and Weber, through more contemporary ideas such as feminism, rational choice, racism, and post-modernity. Throughout this class, we have three goals: to learn to read and understand key theoretical work in sociology; to use this work to better understand the social world around us; and to better develop our own capacity to talk and write about the world using ideas from theory.
Style: 60% Lecture, 10% Film/Video, 10% Discussions.
Grading: 15% mid exam, 20% final exam, 20% reports/papers, 30% additional semester exams, 2% attendance, 10% reflection
paper, 3% class participation.

Exam Format: The tests are designed to evaluate your mastery of the concepts and ideas covered by the readings, lectures and discussions. The questions will be mostly short-answer and essay. The first three tests are worth 150 points each. The fourth is 200.

SOC 3701 Social Theory
A-F only, 4 credit(s); prereq 1001 recommended; soc majors/minors must register A-F;
Instructor: Edgell, Penny A
Description: This course is designed to provide an overview of the major theoretical traditions in the discipline of sociology. Sociological theory is like an evolving conversation about core questions regarding the nature of society and the individual’s role within it. These questions include: Are individuals rational calculators of costs and benefits, or do social institutions and structures create and inhabit symbolic universes? Is the social order shaped mostly by the economic system and how it organizes resources (e.g. capitalism), or are technologies of communication and control what matter as we transition from industrial societies to mass societies? How does increasing globalization foster new theories of how societies work? Theories of sociology are, of course, shaped by the social location of the theorist, so as more diverse voices have joined the conversation, theory has expanded to grapple in new ways with problems of power, difference, and inequality. In this class, we will learn how sociological theory has developed over the 20th century and explore how and why it is useful in understanding the world we live in today.
Style: 60% Lecture, 40% Discussion.
Grading: 30% reports/papers, 10% class participation, 60% other evaluation. 4 in-class mini-exams
Exam Format: short answer and short essay

SOC 3701 Social Theory
A-F only, 4 credit(s); prereq 1001 recommended; soc majors/minors must register A-F;
Instructor: Wick, Shaw
Description: This is a fully online section offered through Online and Distance Learning (ODL). College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Traditions of social theory that have been basic to sociological knowledge. How they have expanded in contemporary theory. Their applications in selected areas of empirical research.
Style: 100% Web Based.
Grading: 40% mid exam, 20% final exam, 10% quizzes. -10 written journal assignments (20%) -10 discussion forums (10%)

SOC 3701 Social Theory
A-F only, 4 credit(s); prereq 1001 recommended; soc majors/minors must register A-F;
Instructor: Baiocchi, Arturo
Description: This is a fully online section offered through Online and Distance Learning (ODL). College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Traditions of social theory that have been basic to sociological knowledge. How they have expanded in contemporary theory. Their applications in selected areas of empirical research.
Style: 100% Web Based.
Grading: 40% mid exam, 20% final exam, 10% quizzes. -10 written journal assignments (20%) -10 discussion forums (10%)

SOC 3721 Principles of Social Psychology
3 credit(s); prereq 1001 recommended; soc majors/minors must register A-F;
Instructor: Mortimer, Jeylan T
Description: Principles of Social Psychology Social psychology is at the intersection of macro? and micro? sociology. This class will illuminate the dynamic linkages among social organization, interaction processes, attitudes, and the self. Students will learn principles of social psychology drawn from multiple theoretical perspectives, including symbolic interactionism, expectations states theory, social structure and personality, and the life course. The course will cover a broad range of topics as well as the diverse methods that social psychologists use to study them (for example, experiments, surveys, ethnographic observation). The class will show the relevance of the classic literature of social psychology to contemporary social problems and issues, including rapid social and technological change, inequality (based on gender, race/ethnicity, occupation, wealth), discrimination, torture, and terrorism.
Style: 50% Lecture, 5% Film/Video, 10% Discussion, 35% Small Group Activities.
Grading: 25% mid exam, 25% final exam, 50% reports/papers.
Exam Format: Short essay.

SOC 3801 Sociological Research Methods
4 credit(s); prereq 1001 recommended; soc majors must register A-F;
Instructor: Liebler, Carolyn
Description: This course focuses on the effective critical evaluation of sociological evidence. After introducing basic principles of sociological research, we will carefully read and analyze significant studies which exemplify each of four types of sociological research methods: field observations, historical archives, surveys, and experiments. No mathematical or statistical background is required.
Style: 60% Lecture, 5% Film/Video, 5% Discussion, 20% Laboratory, 5% Small Group Activities, 5% Guest Speakers.
Grading: 20% mid exam, 20% final exam, 30% reports/papers, 10% written homework, 10% class participation, 10% laboratory evaluation.
Exam Format: short answer and brief essay

SOC 3801 Sociological Research Methods
4 credit(s); prereq 1001 recommended; soc majors must register A-F;
Instructor: Alaniz, Ryan Chelese
Description: Student may contact the instructor or department for information.

SOC 3811 Basic Social Statistics
4 credit(s); prereq GC 0731 or intermediate algebra or instr consent ; Meets CLE req of Mathematical Thinking;
Instructor: Bian, Yanjie
Description: This course will introduce sociology majors to basic statistical measures and procedures that are used to describe and analyze quantitative data in sociological research. The topics include (1) displays of frequency and percentage distributions, (2) measures of central tendency and dispersion, (3) measures of association and correlation, (4) bivariate regression, and (5) basics about probability and statistical inference. Lectures on these topics will be given in class meetings, and lab exercises are designed to help students learn statistical skills needed to analyze quantitative data provided in the class. In addition to attendance to lectures and labs, students are expected to read 15-20 pages of the text per week. There will be a midterm exam and a final exam. Students will need a calculation for assignments and exams.
Style: 65% Lecture, 35% Laboratory.
Grading: 70% mid exam, 30% problem solving.
Exam Format: multiple choice, computational problems

SOC 4101W Sociology of Law
A-F only, 3 credit(s); prereq [1001, 3101, 3102] or [3111, 3701] recommended; soc majors/minors must register A-F;
Meets CLE req of Writing Intensive;
Instructor: Boyle, Elizabeth Heger
Description: Law is an institution of enormous social impact, where the most pressing and controversial issues of our time are debated (e.g., When is a collection of cells a human being? Should the state be allowed to kill juveniles who commit crimes? Who owns electronic information?). Sometimes people turn to law for protection and relief; at other times, they seek to avoid it at all costs. Law can be a force for achieving equality and redistributing power in society; yet it can also be conservative, rooted in age-old traditions and customs, with tightly controlled boundaries. Law is located in myriad places, from university
codes of conduct to international treaties on torture. It permeates every aspect of modern life. In this course, students will learn about the sources, content, and impact of law from a sociological perspective.

**Style:** 25% Lecture, 15% Film/Video, 25% Discussion, 25% Small Group Activities, 10% Guest Speakers.

**Grading:** 45% mid exam, 15% reports/papers, 20% special projects, 10% quizzes, 10% in-class presentation.

**SOC 4102 Criminology**
A-F only, 3 credit(s); prereq 3101 or 3102 or 3111 or instr consent; soc majors/minors must register A-F; Credit will not be granted if credit has been received for: SOC 4103;

**Instructor:** Erickson,Gina Allen

**Description:** With over 7.3 million adults - 3.2% of the population or 1 in 31 adults - under correctional supervision (incarcerated, on parole, or on probation), understanding the causes of crime and the creation of criminals is a timely and important endeavor. The focus of this course is a theoretical understanding of criminal behavior and the contexts (individual and societal characteristics, family, and neighborhood) associated with crime and criminals. We will pay particular attention to the development of criminal propensities and offending throughout the life course. Finally, we will consider crime from an international perspective to better understand why crime and incarceration are so high in the United States.

**Style:** 35% Lecture, 20% Film/Video, 25% Discussion, 10% Small Group Activities, 10% Guest Speakers.

**Grading:** 20% mid exam, 25% final exam, 20% reports/papers, 10% written homework, 10% in-class presentation, 15% class participation.

**SOC 4142 Juvenile Justice and Law**
3 credit(s); prereq [3101 or 3102 or 3111 or instr consent ]; [jr or sr or grad student]; soc majors/minors must register A-F;

**Instructor:** Malmquist,Carl P

**Description:** An overall focus on issues involving juveniles in our society and how various issues are dealt with in the system of juvenile justice. Topics include: allocation of power among juveniles, families, and the state; problems that arise for juveniles with the school setting and within families; abuse and child neglect; children's rights; and the juvenile court and its origins up to more current problems. Various types of cases and problems that arise in the juvenile justice system will be considered.

**Style:** 60% Lecture, 30% Discussion. videos

**Grading:** 95% other evaluation. exams, 5% class participation

**Exam Format:** multiple choice

**SOC 4161 Criminal Law in American Society**
3 credit(s); prereq 3101 or 3102 or 3111 or instr consent ; soc majors/minors must register A-F;

**Instructor:** Samaha,Joel B

**Description:** What's criminal law and what's it good for? Should we punish people only for what they do? or for what they might do? or even sometimes for who they are? What are the justifications and excuses for committing crimes? Topics: Bill of Rights and criminal law; elements of crime prosecution has to prove beyond a reasonable doubt; accomplices; criminal attempts; defenses of justification (self-defense, defense of home) and defenses of excuse (insanity, syndromes); criminal homicide; criminal sexual conduct; terrorist crimes. Read and discuss actual cases edited for non lawyers. Intensive class discussion. For upper division undergraduates, all majors.

**Style:** 15% Lecture, 75% Discussion, 10% Small Group Activities

**Grading:** 10% class participation, 90% other evaluation. weekly exams covering reading and discussion

**Exam Format:** 60% definition, explanation of concepts (no notes or books allowed); 20%, case analysis (take home); 20%, essay based on discussion (closed book, open notes)

**SOC 4170 Sociology of International Law**
A-F only, 3 credit(s); prereq 1001 or 3101 or 3102 or 3111 or instr consent ; soc majors/minors must register A-F; Meets CLE req of Global Perspectives;

**Instructor:** Golden,Shannon Leigh

**Description:** "JUST ADDING!!" This course will look at the rise of international law, focusing particularly on the development of human rights norms. We will analyze the actors, processes, history, and debates of international law, and will also explore a variety of conflicts and issues to which international law is applied. Cases explored in greater depth include the Holocaust and more recent conflicts in Bosnia and Herzegovina, Rwanda, Darfur, Congo, Uganda.

**Style:** 40% Lecture. 10% Film/Video, 20% Discussion, 10% Small Group Activities, 20% Guest Speakers.

**SOC 4411 Terrorist Networks and Counterterror Organizations**
A-F only, 3 credit(s); prereq 1001 recommended;

**Instructor:** Knoke,David H

**Description:** SOC4411 Terrorist Networks & Counterterror Organizations Theories/evidence about origins, development, and consequences of terrorist networks. Efforts to prevent, investigate, and punish terrorists by use of law enforcement, security, and military forces. Terror involves using violent actions to achieve political, religious, or social goals. This course examines theories and evidence about the origins, development, and consequences of terrorist networks. It analyzes efforts to prevent, investigate, and punish terrorists by counterterror organizations, including law enforcement, security, and military forces.

**Style:** 40% Lecture, 15% Film/Video, 20% Discussion, 15% Small Group Activities, 10% Guest Speakers.

**Grading:** 100% reports/papers. Three shorter writing assignments 20% each, course paper 40%.

**SOC 4521 Love, Sex, and Marriage**
3 credit(s); prereq Soc majors must register A-F 1001 or instr consent ; soc majors/minors must register A-F;

**Instructor:** Haltinner,Kristin

**Description:** The purpose of this course is to assist students in fulfilling CLA's senior project requirement, the 'capstone' of the senior project. There will be two options: the

**Grading:** 25% reports/papers, 15% special projects, 20% attendance, 40% reflection paper.

**SOC 4966W Major-Project Seminar**
A-F only, 4 credit(s); prereq 1001, 3701, 3801, 3811, 12 cr upper div sociology, dept consent ; Meets CLE req of Writing Intensive;

**Instructor:** Boyle,Elizabeth Heger

**Description:** Satisfies sociology major senior project requirement. Guidance in defining a problem, reviewing prior theory and research, gathering data, and conducting analyses. Classes will consist primarily of discussion and group consultations interspersed with lectures. Periodic assignments will allow students to build their projects step-by-step. A textbook on writing in sociology will be required. The course is targeted to undergraduate sociology majors.

**Style:** 20% Lecture, 40% Discussion. peer review and consultation

**Grading:** 20% class participation, 60% other evaluation. mini-papers; 20% final paper

**SOC 4966W Major-Project Seminar**
A-F only, 4 credit(s); prereq 1001, 3701, 3801, 3811, 12 cr upper div sociology, dept consent ; Meets CLE req of Writing Intensive;

**Instructor:** Goldman,Michael R

**Description:** The purpose of this course is to assist students in fulfilling CLA's senior project requirement, the 'capstone' of the undergraduate career. Enrollment is limited to student majors in Sociology. The class provides a structure and guided format for completing the senior project. There will be two options: the
SOC 4977V Senior Honors Proseminar I
3 credit(s); prereq 3701, 3801, 3811, 9 additional upper div sociology cr, sr soc honors major, dept consent ; Meets CLE req of Writing Intensive;
Instructor: Hull,Kathleen E
Description: Style: 25% Lecture, 30% Discussion, 25% Student Presentation.

SOC 5455 Sociology of Education
3 credit(s); prereq 1001 or equiv or instr consent ; soc majors/minors must register A-F; Credit will not be granted if credit has been received for: EDPA 5041;
Instructor: Seashore,Karen Rose
Description: Structures and processes within educational institutions. Links between educational organizations and their social contexts, particularly as these relate to educational change.

SOC 5811 Intermediate Social Statistics
4 credit(s); prereq 3811 or equiv; primarily for 1st-yr soc grad students; soc majors/minors must register A-F;
Instructor: Warren,John R
Description: Student may contact the instructor or department for information.

SOC 8001 Sociology as a Profession
S-N only, 1 credit(s), max credits 2; prereq Grad soc major;
Instructor: Warren,John R
Description: Student may contact the instructor for department information.

SOC 8090 Topics in Sociology: Contexts Workshop:Graduate Student Editorial Board
1.5 credit(s), max credits 12, 4 completions allowed; prereq instr consent ;
Instructor: Hartmann,Douglas
Description: Students in the course will serve as the graduate student board and substantive contributors to Contexts, the American Sociological Association journal currently housed in Minnesota. Instructor permission, based on a detailed application, is required to register for the course. In addition to experience and qualifications, the board will be selected so as to involve students from different stages in the program, substantive interest areas, and methodological specialties. Though there will be some overlap from year to year, participants in the course will rotate on an annual basis. The seminar is designed as a year-long 3-credit course (with 1.5 academic credits awarded for fall and 1.5 credits in spring) with the possibility of honorary stipends for the summer months.
Style: 10% Lecture, 40% Discussion, 10% Small Group Activities, 25% Student Presentation, 5% Field Trips, 10% Web Based. Outreach activities, social events, and release parties are sometimes held outside class time.

SOC 8311 Political Sociology
3 credit(s); Instructor: Broadbent,Jeffrey Prad
Description: Political sociology is the study of power--its the distribution, formation and transformation. Power if of two main types: Individual -- the capacity of an actor to dominate, persuade others, and collective--the capacity of a group or society to take effective, organized action. Power constitutes many social phenomena, including the overtly political such as elections and governments, but also penetrates deeply into the total society in pervasive class and status hierarchies, the political-economy and work with participation and costs, and hegemonic ideologies and belief systems. It penetrates right into the micro levels of interpersonal relations and the subjective self-identity. In contrast to political science, political sociology focuses on the broader scope of interaction between society and politics, bringing in a wider range of social theory. General substantive problems include democratization, citizenship, development, migration, the state, policy formation, elites and classes, status hierarchies such as race and gender, civil society, social movements and revolutions, and global governance. These substantive areas of research are cross-cut by differing theoretical perspectives, fundamentally distinguished by their views on the nature of power. Over the past 50 years, the theoretical core has moved from functionalism to conflict theory in sociology, along with rational choice and institutionalism in political science. Now the theoretical core of political sociology is moving to networks, relational perspectives, and culture. These perspectives are just beginning to seep into political science. Theory informs studies at macro, meso and micro levels of analysis. As macro formations, power relations take shape as structures, institutions, configurations, systems (terms with different implications). But the discipline is now investigating the constituting mechanisms of these macro formations at the meso (inter-organizational) and micro (interpersonal or identity) levels. Different societies consist of and operate through different mixtures of power relations. Movements challenge and transform the specific formations of power, bringing about social and regime change. Large-scale social power relations are complex systems with many interacting dimensions and pieces. The seminar surveys this wide field of political sociology, covering many schools, theories, perspectives, concepts and applications. The instructor's view is eclectic, open-minded, and exploratory -- not dogmatic, not insistent upon the correctness any particular school. In your future research, you may choose to work within a certain school or paradigm. But to develop your arguments and analysis in a sensitive way, you will need to know what the alternatives are, so you can locate your arguments within the total field and respond to (inevitable) critics. The seminar is designed to give you that broad, comparative, theoretical perspective.
Style: 25% Lecture, 65% Discussion, 10% Student Presentation.
Grading: 80% reports/papers, 10% in-class presentation, 10% class participation.
To discuss major methodological and theoretical challenges in this area of research. ? To lay out important ?next steps? in developing a work, health, and well-being research agenda.

Class participants will gain a broad overview of the topic area, as well as the challenges introduced by incorporating the life course (as time, structure, and context) into the study of work and the mental and physical well-being of men and women. The life course reflects the complex interplay between: ? Biological time, including physical and cognitive development and age-related health trajectories; ? Biographical time, involving social and institutional clocks, career paths, role entries, and pathways and exits, along with changes in resources, risks, and relationships?all of which relate to health; ? Subjective time, identity, motivation, and cognitive assessments as people move into and through educational, occupational, family, community and retirement pathways; ? Shifting social contexts and in tandem with significant others; ? Institutional time, including public and organizational clocks, as well as policy regimes related to norms of timing, sequencing, and duration of role entries, exits, and trajectories -- the social organization of age, gender, health-related behaviors, and health care; ? Historical time, including demographic, organizational, economic, and cultural change, unanticipated events, the environment, and the links between individuals and institutions as they play out in historical and organizational contexts.

SOC 8701 Sociological Theory
A-F only, 4 credit(s); prereq Grad soc major or instr consent;
Instructor: Gorelick, Joseph Howard
Description: This course provides an introduction to the central traditions, figures and concepts in sociological theory. It is intended primarily for first-year graduate students in Sociology, but it covers work that is widely read and referenced in the social sciences generally. This course covers the work of Marx, Weber, Durkheim, Simmel, Mead, Goffman, Bourdieu, and several other traditions and figures.

SOC 8735 Sociology of Culture
3 credit(s);
Instructor: Hull, Kathleen E
Description: This course provides a general overview of the rapidly expanding field of the sociology of culture. Culture can be broadly conceived as the symbolic/expressive dimension of social life, but there are ongoing theoretical debates about how to define culture and how to use culture in sociological analysis. We begin with the basic conceptual question about the definition and importance of culture as a dimension of social life. We will then explore a series of theoretical and empirical works that address various aspects of the role of culture in social life. We will examine several distinct approaches to investigating and explaining culture, including structural/Durkheimian approaches, cultural Marxism, and practice theory. We will also devote several weeks to processes of cultural creation and reception, identities as cultural formations, and the relationship between culture and social inequality, among other topics. Throughout the course, we will cast a critical eye on the relationship between theories of culture, empirical evidence on cultural processes, and methods of investigating culture. We will also try to think about the sociology of culture in relation to other fields within the discipline, to consider how cultural theories, methods, and findings can contribute to our understanding of diverse social domains such as education, employment, politics, personal relationships, sexuality, morality, race, and urban life.

SOC 8890 Advanced Topics in Research Methods
2 credit(s), max credits 12, 3 completions allowed; prereq Grad soc major, 8801, 8811 or instr consent;
Instructor: Gowen, Teresa
Description: Student may contact the instructor or department for information.

SOC 8890 Advanced Topics in Research Methods: Ethnography
3 credit(s), max credits 12, 3 completions allowed; prereq Grad soc major, 8801, 8811 or instr consent;
Instructor: Gowen, Teresa

Description: Students taking this class will gain a good grasp of the theory and practice of ethnography, by reading and digesting some exemplary ethnographic work and by undertaking their own fieldwork projects. Students will learn how to generate field notes that shuttle between rich description and coherent, flexible analysis. In-depth class discussions of their own and each other's work will develop the always-tricky skill of "operationalization," that is, the transformation of social theories into workable hypotheses for the field. We will employ both the readings and student work to explore various ways that ethnographers can transcend the small scale of their research to make significant claims about the social world. Along the way we will encounter and process some of the thorny ethical, epistemological, and political questions and dilemmas which are inevitably produced by the intimate relationship between ethnographer and informant. This practicum can work well for students at different stages of their research processes. It will provide an intensive and hands-on introduction to ethnographic methodology, but it can equally work well as a springboard into PhD research.

Software Engineering
6-202 EE/CSci

SENG 8707 The Principles of Database Systems
A-F only, 3 credit(s); prereq Grad SEng major;
Instructor: Carlis, John Vincent
Description: Student may contact the instructor or department for information.

SENG 8801 Software Engineering I: Overview, Requirements, and Modeling
A-F only, 3 credit(s); prereq Grad SEng major;
Instructor: Heimdahl, Mats
Description: Student may contact the instructor or department for information.

SENG 8581 Software Project Management
A-F only, 3 credit(s); prereq Grad SEng major;
Instructor: Kaman, John Francis
Description: Student may contact the instructor or department for information.

SENG 8561 Introduction to Software Architecture
A-F only, 3 credit(s); prereq 2nd year, MSSE grad student;
Instructor: Sisley, Elizabeth Marie
Description: Student may contact the instructor or department for information.

SENG 8899 Software Engineering Seminar
1 credit(s), max credits 2; prereq Grad SEng major, instr consent;
Instructor: Collins, John
Description: Student may contact the instructor or department for information.

SENG 8494 Capstone Project (Plan B Project)
S-N only, 3 credit(s); prereq SEng major;
Instructor: Collins, John
Description: Student may contact the instructor or department for information.

SENG 8891 Independent Project
2-6 credit(s), max credits 12;
Instructor: Hedger, Dick
Description: Student may contact the instructor or department for information.

SENG 8891 Independent Project
2-6 credit(s), max credits 12;
Instructor: Carlis, John Vincent
Description: Student may contact the instructor or department for information.
for information.

SENG 8891 Independent Project
2-6 credit(s), max credits 12;
Instructor: Kruse, John Michael
Description: Student may contact the instructor or department for information.

SENG 8891 Independent Project
2-6 credit(s), max credits 12;
Instructor: Collins, John
Description: Student may contact the instructor or department for information.

SENG 8891 Independent Project
2-6 credit(s), max credits 12;
Instructor: Vayghan, Jamshid A.
Description: Student may contact the instructor or department for information.

SENG 8891 Independent Project
2-6 credit(s), max credits 12;
Instructor: Kan, Stephen Hawaii
Description: Student may contact the instructor or department for information.

SENG 8891 Independent Project
2-6 credit(s), max credits 12;
Instructor: Calvo, Michael Joseph
Description: Student may contact the instructor or department for information.

SENG 8891 Independent Project
2-6 credit(s), max credits 12;
Instructor: Schutta, Nathaniel T
Description: Student may contact the instructor or department for information.

SENG 8891 Independent Project
2-6 credit(s), max credits 12;
Instructor: Heimdahl, Mats
Description: Student may contact the instructor or department for information.

SENG 8891 Independent Project
2-6 credit(s), max credits 12;
Instructor: Srivastava, Jaideep
Description: Student may contact the instructor or department for information.

SENG 8891 Independent Project
2-6 credit(s), max credits 12;
Instructor: Bitzenhofer, Neil A
Description: Student may contact the instructor or department for information.

SENG 8891 Independent Project
2-6 credit(s), max credits 12;
Instructor: Skovbroten, John Emil
Description: Student may contact the instructor or department for information.

SOIL 1125 The Soil Resource
4 credit(s); Credit will not be granted if credit has been received for: SOIL 2125; Meets CLE req of Environment;
Instructor: Cooper, Terence H
Description: This course is designed for undergraduates who have completed some of the basic sciences (biology, chemistry).
The course covers the 5 basic areas of: 1) Soil classification; 2) Soil formation; 3) Physical properties; 4) Biological properties; and 5) Chemical properties. Students must use the WWW to read required information before doing hands-on laboratory activities. Individual exams, team exams, lecture dyads, lab reports, land use project, and final exam are used to determine course grades. Lecture notes on the WWW.
Style: 60% Lecture, 40% Discussion.
Grading: 15% mid exam, 15% final exam, 40% quizzes, 10% laboratory evaluation, 20% other evaluation. Land use project Exam Format: MC

SOIL 2125 Basic Soil Science
A-F only, 4 credit(s); prereq [CHEM 1015, CHEM 1017] or CHEM 1021 or equiv; Credit will not be granted if credit has been received for: SOIL 1125; Meets CLE req of Environment; meets CLE req of Physical Sciences;
Instructor: Cooper, Terence H
Description: This course is designed for undergraduates who have completed some of the basic sciences (biology, chemistry).
The course covers the 5 basic areas of: 1) Soil classification; 2) Soil formation; 3) Physical properties; 4) Biological properties; and 5) Chemical properties. Students must use the WWW to read required information before doing hands-on laboratory activities. Web exams, team exams, lecture dyads, lab reports, land-use project and final exam are used to determine course grades. Lecture notes on the WWW.
Style: 60% Lecture, 40% Discussion.
Grading: 15% mid exam, 15% final exam, 40% quizzes, 10% laboratory evaluation, 20% other evaluation. Land use project Exam Format: MC

SOIL 3521 Soil Judging
A-F only, 4 credit(s); Credit will not be granted if credit has been received for: SOIL 1125; Meets CLE req of Environment; meets CLE req of Physical Sciences;
Instructor: Cooper, Terence H
Description: Students who participate in the regional or national soil judging contest are eligible to enroll in this course. Soil judging contests are in October and require 4 days of commitment. Students should have completed Soil 4511
Style: Field trip to contest
Grading: 100% final exam.

SOIL 4093 Directed Study
1-7 credit(s), max credits 20, 20 completions allowed; prereq instr consent;
Instructor: STAFF
Description: Students who want to explore a special topic of their interest should visit with a faculty member who will direct their exploration. Report length dependent on the credits.
Style: Independent research

SOIL 4094 Directed Research
1-7 credit(s), max credits 7, 1 completion allowed; prereq instr consent;
Instructor: STAFF
Description: Students who want to do research in a special area should determine a faculty member who will guide their research activities. Research depth depends on the credits.
Style: Independent study

SOIL 4511 Field Study of Soils
This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
SOIL 5251 Soil Science for Teachers
3 credit(s); Credit will not be granted if credit has been received for: SOIL 1125;
Instructor: Cooper, Terence H
Description: This course is designed for teachers who have completed some of the basic sciences (biology, chemistry). The course covers the 5 basic areas of: soil classification, soil formation, physical properties, biological properties, and chemical properties. It is intended for undergraduates and graduate students in Soil, Water, & Climate, Water Resources, Institute of Technology, Environmental Sciences, and Natural Resources. The course covers soil physical properties and processes that govern the transport of mass and energy in soils. Major emphasis is on water and solute transport through the vadose zone, which is the zone above the water table that contains water. Specific topics include the hydrologic cycle, water retention characteristics, and unsaturated hydraulic conductivities. The course also covers soil properties, soil science, and soil classification. Students must use the WWW to read required information before the class begins.
Style: 60% Lecture, 40% Discussion.
Grading: 40% Mid-exam, 10% Final Exam, 20% Quizzes, 10% Lab Exam.
Exam Format: multiple choice and identification

SOIL 5232 Vadose Zone Hydrology
3 credit(s); prereq [Math 1271 or equiv], [Phys 1042 or equiv];
Instructor: Gupta, Satish C
Description: This course is intended for undergraduates and graduate students in Soil, Water, & Climate, Water Resources, Institute of Technology, Environmental Sciences, and Natural Resources. The course covers soil physical properties and processes that govern the transport of mass and energy in soils. Major emphasis is on water and solute transport through the vadose zone, which is the zone above the water table that contains water. Specific topics include the hydrologic cycle, water retention characteristics, and unsaturated hydraulic conductivities. Poiseuille and Darcy laws, law of mass conservation, flow through uniform and layered soils, water infiltration equations, and preferential flow. The lectures are supplemented with hands-on laboratory exercises on methods of measuring hydraulic, thermal, and gas fluxes. The course is designed for teachers who have completed some of the basic sciences (biology, chemistry). The course covers the 5 basic areas of: soil classification, soil formation, physical properties, biological properties, and chemical properties.
Exam Format: multiple choice and identification

SOIL 5311 Soil Chemistry and Mineralogy
3 credit(s); prereq [Chem 1022 or equiv], Phys 1102, grad
Instructor: Toner, Brandy Marie
Description: This course is intended for undergraduates and graduate students in Soil, Water, & Climate, Water Resources, Institute of Technology, Environmental Sciences, and Natural Resources. The course covers soil physical properties and processes that govern the transport of mass and energy in soils. Major emphasis is on water and solute transport through the vadose zone, which is the zone above the water table that contains water. Specific topics include the hydrologic cycle, water retention characteristics, and unsaturated hydraulic conductivities. Poiseuille and Darcy laws, law of mass conservation, flow through uniform and layered soils, water infiltration equations, and preferential flow. The lectures are supplemented with hands-on laboratory exercises on methods of measuring hydraulic, thermal, and gas fluxes. The course is designed for teachers who have completed some of the basic sciences (biology, chemistry). The course covers the 5 basic areas of: soil classification, soil formation, physical properties, biological properties, and chemical properties.
Exam Format: multiple choice and identification

SOIL 5480 Special Topics in Land and Atmospheric Science
1-4 credit(s), max credits 6, 6 completions allowed;
Instructor: Nater, Ed
Description: This course is intended for undergraduates and graduate students in Soil, Water, & Climate, Water Resources, Institute of Technology, Environmental Sciences, and Natural Resources. The course covers soil physical properties and processes that govern the transport of mass and energy in soils. Major emphasis is on water and solute transport through the vadose zone, which is the zone above the water table that contains water. Specific topics include the hydrologic cycle, water retention characteristics, and unsaturated hydraulic conductivities. Poiseuille and Darcy laws, law of mass conservation, flow through uniform and layered soils, water infiltration equations, and preferential flow. The lectures are supplemented with hands-on laboratory exercises on methods of measuring hydraulic, thermal, and gas fluxes. The course is designed for teachers who have completed some of the basic sciences (biology, chemistry). The course covers the 5 basic areas of: soil classification, soil formation, physical properties, biological properties, and chemical properties.
Exam Format: multiple choice and identification

SOIL 5480 Special Topics in Land and Atmospheric Science
1-4 credit(s), max credits 6, 6 completions allowed;
Instructor: Snyder, Peter K
Description: This course is intended for undergraduates and graduate students in Soil, Water, & Climate, Water Resources, Institute of Technology, Environmental Sciences, and Natural Resources. The course covers soil physical properties and processes that govern the transport of mass and energy in soils. Major emphasis is on water and solute transport through the vadose zone, which is the zone above the water table that contains water. Specific topics include the hydrologic cycle, water retention characteristics, and unsaturated hydraulic conductivities. Poiseuille and Darcy laws, law of mass conservation, flow through uniform and layered soils, water infiltration equations, and preferential flow. The lectures are supplemented with hands-on laboratory exercises on methods of measuring hydraulic, thermal, and gas fluxes. The course is designed for teachers who have completed some of the basic sciences (biology, chemistry). The course covers the 5 basic areas of: soil classification, soil formation, physical properties, biological properties, and chemical properties.
Exam Format: multiple choice and identification

SOIL 5555 Wetland Soils
A-F only, 3 credit(s); prereq 2125 or 2125 or equiv or instr consent; Concurrent registration is required (or allowed) in 4511 recommended; Credit will not be granted if credit has been received for: ESPM 5555;
Instructor: Anderson, James L
Description: This course is intended for undergraduates and graduate students in Soil, Water, & Climate, Water Resources, Institute of Technology, Environmental Sciences, and Natural Resources. The course covers soil physical properties and processes that govern the transport of mass and energy in soils. Major emphasis is on water and solute transport through the vadose zone, which is the zone above the water table that contains water. Specific topics include the hydrologic cycle, water retention characteristics, and unsaturated hydraulic conductivities. Poiseuille and Darcy laws, law of mass conservation, flow through uniform and layered soils, water infiltration equations, and preferential flow. The lectures are supplemented with hands-on laboratory exercises on methods of measuring hydraulic, thermal, and gas fluxes. The course is designed for teachers who have completed some of the basic sciences (biology, chemistry). The course covers the 5 basic areas of: soil classification, soil formation, physical properties, biological properties, and chemical properties.
Exam Format: multiple choice and identification

SOIL 5611 Soil Biology and Fertility
3 credit(s); prereq 2125, Biol 1009 or equiv, Chem 1021 or equiv, or grad or grad; Biol 2xxx, MicB 3xxx recommended;
Instructor: Allan, Deborah L
Description: This course is intended for undergraduates and graduate students in Soil, Water, & Climate, Water Resources, Institute of Technology, Environmental Sciences, and Natural Resources. The course covers soil physical properties and processes that govern the transport of mass and energy in soils. Major emphasis is on water and solute transport through the vadose zone, which is the zone above the water table that contains water. Specific topics include the hydrologic cycle, water retention characteristics, and unsaturated hydraulic conductivities. Poiseuille and Darcy laws, law of mass conservation, flow through uniform and layered soils, water infiltration equations, and preferential flow. The lectures are supplemented with hands-on laboratory exercises on methods of measuring hydraulic, thermal, and gas fluxes. The course is designed for teachers who have completed some of the basic sciences (biology, chemistry). The course covers the 5 basic areas of: soil classification, soil formation, physical properties, biological properties, and chemical properties.
Exam Format: multiple choice and identification

SOIL 8110 Colloquium in Soil Science
S-N only, 1-3 credit(s), max credits 6, 6 completions allowed;
Instructor: Twine, Tracy E
Description: This course is intended for undergraduates and graduate students in Soil, Water, & Climate, Water Resources, Institute of Technology, Environmental Sciences, and Natural Resources. The course covers soil physical properties and processes that govern the transport of mass and energy in soils. Major emphasis is on water and solute transport through the vadose zone, which is the zone above the water table that contains water. Specific topics include the hydrologic cycle, water retention characteristics, and unsaturated hydraulic conductivities. Poiseuille and Darcy laws, law of mass conservation, flow through uniform and layered soils, water infiltration equations, and preferential flow. The lectures are supplemented with hands-on laboratory exercises on methods of measuring hydraulic, thermal, and gas fluxes. The course is designed for teachers who have completed some of the basic sciences (biology, chemistry). The course covers the 5 basic areas of: soil classification, soil formation, physical properties, biological properties, and chemical properties.
Exam Format: multiple choice and identification

SOIL 8120 Seminar in Soils
S-N only, 1 credit(s), max credits 2;
Instructor: Rice, Pamela
Description: This course is intended for undergraduates and graduate students in Soil, Water, & Climate, Water Resources, Institute of Technology, Environmental Sciences, and Natural Resources. The course covers soil physical properties and processes that govern the transport of mass and energy in soils. Major emphasis is on water and solute transport through the vadose zone, which is the zone above the water table that contains water. Specific topics include the hydrologic cycle, water retention characteristics, and unsaturated hydraulic conductivities. Poiseuille and Darcy laws, law of mass conservation, flow through uniform and layered soils, water infiltration equations, and preferential flow. The lectures are supplemented with hands-on laboratory exercises on methods of measuring hydraulic, thermal, and gas fluxes. The course is designed for teachers who have completed some of the basic sciences (biology, chemistry). The course covers the 5 basic areas of: soil classification, soil formation, physical properties, biological properties, and chemical properties.
Exam Format: multiple choice and identification

SOIL 8195 Research Problems in Soils
1-5 credit(s), max credits 10, 10 completions allowed;
Instructor: Nater, Ed
Description: This course is intended for undergraduates and graduate students in Soil, Water, & Climate, Water Resources, Institute of Technology, Environmental Sciences, and Natural Resources. The course covers soil physical properties and processes that govern the transport of mass and energy in soils. Major emphasis is on water and solute transport through the vadose zone, which is the zone above the water table that contains water. Specific topics include the hydrologic cycle, water retention characteristics, and unsaturated hydraulic conductivities. Poiseuille and Darcy laws, law of mass conservation, flow through uniform and layered soils, water infiltration equations, and preferential flow. The lectures are supplemented with hands-on laboratory exercises on methods of measuring hydraulic, thermal, and gas fluxes. The course is designed for teachers who have completed some of the basic sciences (biology, chemistry). The course covers the 5 basic areas of: soil classification, soil formation, physical properties, biological properties, and chemical properties.
Exam Format: multiple choice and identification

SOIL 8550 Teaching Experience
S-N only, 1 credit(s), max credits 6, 6 completions allowed;
Instructor: Allan, Deborah L
Description: This course is intended for undergraduates and graduate students in Soil, Water, & Climate, Water Resources, Institute of Technology, Environmental Sciences, and Natural Resources. The course covers soil physical properties and processes that govern the transport of mass and energy in soils. Major emphasis is on water and solute transport through the vadose zone, which is the zone above the water table that contains water. Specific topics include the hydrologic cycle, water retention characteristics, and unsaturated hydraulic conductivities. Poiseuille and Darcy laws, law of mass conservation, flow through uniform and layered soils, water infiltration equations, and preferential flow. The lectures are supplemented with hands-on laboratory exercises on methods of measuring hydraulic, thermal, and gas fluxes. The course is designed for teachers who have completed some of the basic sciences (biology, chemistry). The course covers the 5 basic areas of: soil classification, soil formation, physical properties, biological properties, and chemical properties.
Exam Format: multiple choice and identification

Somali
808 Social Sciences Tower

Spanish
206 Eddy Hall

SPAN 144 Intermediate Medical Spanish
S-N only, 0 credit(s); prereq [1st yr college-level Spanish or
...
SPAN 344 Advanced Medical Spanish

5 credit(s); prereq 1002 or EPT placement; dept consent.

Instructor: Morales, Flavio Antonio

Description: This course is for the student who has completed Spanish 1001 at the University of Minnesota. Upon entering this course, the student should know basic vocabulary and present and past tense forms, that is to say, be familiar with the material between the “Leccion Preliminar” to “Leccion 9” of the text, “?Sabias que...?”, 3rd ed. Spanish is spoken almost exclusively in class. Spanish 1002 continues to focus on the development of communicative skills: listening, speaking, reading and writing.

One day a week students watch “Destinos”, an educational television program in Spanish. The text “?Sabias que...?”, 3rd ed., is accompanied by a workbook and audio tapes that are designed to be studied outside class. Since the majority of class time is devoted to speaking and listening, class attendance is critical.

Style: 5% Lecture, 10% Discussion, 1% Laboratory. Group work, reading and related activities.

Grading: 20% final exam, 15% quizzes, 10% class participation, 35% other evaluation. 15% oral interview type evaluations, 10% written compositions and writing activities, 10% listening and workbook exercises.

Exam Format: All quizzes and tests evaluate listening, reading, vocabulary, grammar and writing. A minimum of multiple choice & true-false items; an effort is made to encourage the use of natural language by using short answers and essays. Two oral interviews.

SPAN 1002 Beginning Spanish

5 credit(s); prereq 1001 completed at UMNTC, dept consent.

Instructor: STAFF

Description: This course is for the student who has completed Spanish 1001 at the University of Minnesota. Upon entering this course, the student should know basic vocabulary and present and past tense forms, that is to say, be familiar with the material between the “Leccion Preliminar” to “Leccion 9” of the text, “?Sabias que...?”, 3rd ed. Spanish is spoken almost exclusively in class. Spanish 1002 continues to focus on the development of communicative skills: listening, speaking, reading and writing.

One day a week students watch “Destinos”, an educational television program in Spanish. The text “?Sabias que...?”, 3rd ed., is accompanied by a workbook and audio tapes that are designed to be studied outside class. Since the majority of class time is devoted to speaking and listening, class attendance is critical.

Style: 5% Lecture, 10% Discussion, 1% Laboratory. Group work, reading and related activities.

Grading: 20% final exam, 15% quizzes, 10% class participation, 35% other evaluation. 15% oral interview type evaluations, 10% written compositions and writing activities, 10% listening and workbook exercises.

Exam Format: All quizzes and tests evaluate listening, reading, vocabulary, grammar and writing. A minimum of multiple choice & true-false items; an effort is made to encourage the use of natural language by using short answers and essays. Two oral interviews.

SPAN 1003 Intermediate Spanish

5 credit(s); prereq 1002 or EPT placement.

Instructor: STAFF

Description: This course is for those who have completed Spanish 1002 or 1003 with C- or better, or who have taken two or more years of Spanish in high school and have successfully passed the Entrance Proficiency Test (EPT) for this level. In this course, the student will be able to: use basic Spanish vocabulary and present and past tense forms, that is to say, be familiar with the material between the “Leccion Preliminar” to “Leccion 9” of the text, “?Sabias que...?”, 3rd ed. Spanish is spoken almost exclusively in class. Spanish 1002 continues to focus on the development of communicative skills: listening, speaking, reading and writing.

One day a week students watch “Destinos”, an educational television program in Spanish. The text “?Sabias que...?”, 3rd ed., is accompanied by a workbook and audio tapes that are designed to be studied outside class. Since the majority of class time is devoted to speaking and listening, class attendance is critical.

Style: 5% Lecture, 10% Discussion, 1% Laboratory. Group work, reading and related activities.

Grading: 20% final exam, 15% quizzes, 10% class participation, 35% other evaluation. 15% oral interview type evaluations, 10% written compositions and writing activities, 10% listening and workbook exercises.

Exam Format: All quizzes and tests evaluate listening, reading, vocabulary, grammar and writing. A minimum of multiple choice & true-false items; an effort is made to encourage the use of natural language by using short answers and essays. Two oral interviews.

This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
course, students build on the communicative speaking, writing, listening and reading skills that were acquired in beginning Spanish. The "Conexiones" series, text, lab manual and workbook, are used in class. Class activities are carried out almost entirely in Spanish. For the most part, grammar should be studied at home; a small percentage of class time is intended for grammar instruction and practice. Reading skills are developed through "Conexiones", and writing skills are developed through a variety of writing assignments. Each student will present an oral presentation on a topic related to those covered in "Conexiones" or in class. Because Spanish class is about the only place where a student can practice listening and speaking, class attendance is critical.

**Style:** 40% Discussion. communicative activities with language

**Grading:** 30% mid exam, 20% final exam, 15% reports/papers, 10% in-class participation, 10% class participation, 5% laboratory evaluation, 10% other evaluation. Oral interview

**Exam Format:** Diverse - essay - fill in blank - short answer

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**SPAN 1003 Intermediate Spanish**

5 credit(s); prerequisite [1002 or 1022] or EPT placement; Instructor: Efffler, Edward E.

**Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education.

You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Speaking/comprehension. Developing reading/writing skills based on materials from Spain/Spanish America. Grammar review. Compositions, oral presentations. District - essay - fill in blank - short answer

**Exam Format:** Online with handwritten exams and Language Proficiency Exams

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**SPAN 1004 Intermediate Spanish**

5 credit(s); prerequisite [1003 or EPT] placement; Credit will not be granted if credit has been received for: SPAN 1014; Instructor: STAFF

**Description:** This course is for those who have successfully passed Spanish 1003 with a C- or have passed the Entrance Proficiency Test (EPT) for this level. This course is a requirement for Spanish 3015. In this course, you will build on the communicative speaking, writing, listening and reading skills that you acquired during the first three semesters of Spanish. The "Conexiones" series, text, lab manual and workbook, are used in class. Class activities are carried out almost entirely in Spanish. For the most part, grammar should be studied at home; a small percentage of class time is intended for grammar instruction and practice. Reading skills are developed through "Conexiones", and writing skills are developed through process writing, a multi-step writing process which entails composition writing, rewrites, journals, pop-quizzes, etc. You will also prepare and present a debate with other classmates. Because Spanish class is about the only place where you can practice listening and speaking, class attendance is critical. All students in a BA, BFA or BIS degree program in the CLA must take the Graduation Proficiency Test (GPT) as a requirement of the course unless they have already passed the GPT in this or another language.

**Style:** 10% Lecture. 60% discussion, 30% testing for comprehension and vocabulary, and peer editing, and 10% lecture.

**Grading:** 40% mid exam, 15% final exam, 15% reports/papers, 10% in-class presentation, 10% class participation, 10% other evaluation. 10% homework

**Exam Format:** Listening, vocabulary, reading, short essay, grammar

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**SPAN 1002 Alternate Second-Semester Spanish**

5 credit(s); prerequisite Placement above 1001; Credit will not be granted if credit has been received for: SPAN 4002; Instructor: STAFF

**Description:** This class is a first year Spanish course developed for students with previous language experience. The instruction and context are delivered by a combination of in class meetings and a wide range of online activities. The different online components were designed to help you become a more successful language learner by giving you the opportunity to explore different learning modes independently and to provide more exposure to the Spanish language. You will have the opportunity to experience different accents and regional variations, not just your instructor's, as well as a wealth of other authentic materials that would not be readily accessible in a regular classroom. For that reason the course requires a considerable amount of independent work to be completed online outside of the classroom contact hours. The regular class typically meets four days a week and the Technology-enhanced sections typically meet three days a week. All sections meet every day the first week of instruction. Students are not to schedule other classes or work on the days that the classes do not meet because some weeks classes will meet all five days and the instructors expect those 50-minute sections to be available for Spanish on short notice. The web activities are to be done outside of the classroom.

**Style:** 5% Lecture, 10% Discussion, 10% Laboratory. group work, reading and related activities

**Grading:** 20% final exam, 10% class participation, 10% laboratory evaluation, 25% other evaluation. unit exams,15% oral interview type evaluations, 10% written compositions and journals, 15% listening and workbook exercises

**Exam Format:** All quizzes and tests evaluate listening, writing, vocabulary, grammar and reading. A minimum of multiple choice, true-false items; encourage the use of natural language by using short answers and essays. Two oral interviews.
SPAN 1044 Intermediate Medical Spanish
5 credit(s); prereq 1003 or equiv; Credit will not be granted if credit has been received for: SPAN 1004;
Instructor: STAFF
Description: Course designed to help health care professionals and/or students pursuing health care field communicate with patients who speak Spanish. Basic Medical vocabulary, questions and answers in common medical situations, vocabulary and phrases to conduct patient interviews and medical history, vocabulary and conversations to conduct physical exams; understanding the Latin American view of health and health care. In terms of the grammatical aspects, the course covers same areas as Spanish 1004; therefore, students planning on taking Spanish 3015 will be prepared to do so. Besides in class activities, and for a better understanding of cultural aspects, students will perform individual work on WebCT and CD-ROM which concentrate on watching and listening, reading and writing about interviews of health care providers who work with Spanish speaking community, and interactions in the target language between doctors and patients. * Evaluation standards: Students will be evaluated on class participation, discussion of course content, exploration of cultural component, therefore class attendance is critical. Evaluation of communicative speaking, writing, listening and reading is done through exams, composition writing and presentation.
Application of Learning Technologies: each week online discussion of questions based on readings. The discussion requires thought about how a theme is related to aspects of interaction with the Chicano/Latino population.
Style: 10% Lecture, 60% Discussion. language lab, listening, writing testing for comprehension and vocabulary and peer editing
Grading: 15% reports/papers, 50% quizzes, 10% in-class presentation, 15% class participation, 10% other evaluation, round table discussion
Exam Format: Exams evaluate listening, reading, vocabulary & grammar, writing & culture. A minimum of multiple choice and true/false items; encourage use of natural language by using short answers, short/long reports

SPAN 1521 Spanish I
A-F only, 3 credit(s);
Instructor: Furness, Ryan C
Description: Student may contact the instructor or department for information.

SPAN 3015 Spanish Composition and Communication
4 credit(s); prereq [1004 or 1014 or 1044], LPE pass;
Instructor: STAFF
Description: Spanish 3015 is the first of the upper division sequence for Spanish majors and minors. To enroll in this class, a student must have successfully completed Spanish 1004 or Spanish 1014 or Spanish 1044 and a "High Pass" on the LPE is highly recommended. Students who have not taken Spanish 1004 (or equiv.) at the University of Minnesota must achieve a "high pass" on the LPE to enroll in Spanish 3015. This class is designed to further develop and strengthen the language skills acquired in the foundation courses. Rather than separating the internal disciplines inherent in second language study, this course seeks to integrate in a meaningful and "real world" fashion the student's ability to write, speak, read and understand modern Spanish at a level that is expected of majors and minors. Students will generate a series of creative and original compositions and will read a variety of texts from both Spain and Latin America. The class will employ diverse learning techniques -- grammar review, audio tape exercises, paired work, small group work, all class discussions, oral presentations, peer editing, process writing -- to provide students with the appropriate opportunities to enhance their language skills as they learn academic content through the active use of the Spanish language. This course requires a major time commitment on the part of each student registered.
Style: 25% Lecture, 50% Discussion. 15% peer editing, 10% preparing and presenting projects
Grading: 15% class participation, 5% participation in peer editing groups, 30% compositions and portfolio, 20% examinations, 10% reader's journal, 10% round-table discussion, 10% final research paper
Exam Format: Essays and short answers written in Spanish, together with grammar sections.

SPAN 3021 Advanced Communication Skills
4 credit(s); prereq 3015 credit will not be granted if credit received for: TLDO 3021;
Instructor: STAFF
Description: Spanish 3021 is the second of the upper division sequence for majors or minors. Students who received an A or B in Spanish 3015 under the semester system and feel linguistically prepared, have the option to advance to the 31xx series in lieu of 3021; however, they may substitute it later for an elective course. While this class is designed to further develop and strengthen the language skills, it seeks to integrate in a meaningful and "real world" fashion the student's ability to write, speak, read and understand modern Spanish at a level that is expected of majors and minors. Students will write summaries of lectures given by native speakers, two papers and reader's journals. They will give an oral presentation and read a variety of texts. The class will employ diverse learning techniques -- grammar review, audio tape exercises, paired work, small group work, all-class discussions, peer editing, and process writing -- to provide students with the appropriate opportunities to enhance their language skills as they learn academic content through the active use of the Spanish language. This course requires a major time commitment on the part of each student registered.
Style: 25% Lecture, 50% Discussion. 15% peer editing, 10% preparing and presenting projects
Grading: 20% mid exam, 20% quizzes, 10% in-class presentation, 10% class participation. 15% compositions and portfolio, 10% paper, 10% reader's journal, 25% final paper
Exam Format: Essays and short answers written in Spanish, together with grammar sections.

SPAN 3104W Introduction to the Study of Hispanic Literatures
A-F only, 3 credit(s); prereq [3015 with grade of at least B-] or successful completion of 3021; Credit will not be granted if credit has been received for: TLDO 3104; Meets CLE req of Literature; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: This course aims to introduce students to basic concepts of literary criticism and analysis through reading, discussing and writing about a variety of texts in Spanish. These will broadly represent a range of genres, periods, and styles. As this a writing-intensive course, it will include regular practice of composition and revision of written Spanish as a means of interpreting and responding to literary texts.

SPAN 3105W Introduction to the Study of Hispanic Cultures
3 credit(s); prereq [3015 with grade of at least B-] or 3021; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

SPAN 3107W Introduction to the Study of Hispanic Linguistics
3 credit(s); prereq [3015 with grade of at least B-] or 3021; Credit will not be granted if credit has been received for: TLDO 3107; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

SPAN 3211 Discourses of Imperial Spain, 1492-1800
3 credit(s); prereq 3104; Credit will not be granted if credit has been received for: TLDO 3211;
Instructor: Spadaccini, Nicholas
Description: This course will consider some of the major literary/cultural texts from the early-modern period, especially the sixteenth and seventeenth centuries, also known as the Renaissance and Baroque periods. Presentations and discussions will cover a broad range of materials ranging from writing on the so-called "New World" to representations of issues and topics such as poverty, honor and lineage, history and
fction, love, marriage, subjectivity, and so on. These discussions will be organized around canonical texts such as Fernando de Rojas’ La Celestina; the anonymous Lazarillo de Tormes (which was probably written by an Erasmian humanist); sections of Cervantes’s Don Quijote, and other texts covering most genres. A detailed syllabus will be made available to students on the first day of classes.

**Style:**
60% Lecture, 30% Discussion. (Oral presentation of a literary work in a round-table format)

**Grading:**
30% final exam, 20% reports/papers, 10% in-class presentation, 10% class participation.

**Exam Format:**
Essays (textual analysis; discussion of literary issues and problematics) combined with short-answer definitions (i.e., genres, technical language), and identifications

### SPAN 3221 Latin American Colonial Discourses: Empire and Early Modernity

3 credit(s); prereq 3104 or 3105;

**Instructor:** STAFF

**Description:** The goal of this course is to provide the student with a firm foundation in the socio-historic context of the Colonial Period including the central preoccupations of the time, a knowledge of the terms in which these concerns were addressed (and by whom), and an idea of the major scholarly debates today regarding Colonial writings in Latin America. To this end, we will explore Latin American texts (in the broadest sense), discourses, and important figures from pre-contact, ?discovery,? conquest, and the Baroque ? leading to Independence - with an emphasis on the context of New Spain (today’s Mexico). These discussions will be organized around texts such as Indigenous codices; the letters of Christopher Columbus and Hernan Cortes; the encyclopedic works of Bernardino de Sahagun; the controversial writings of Bartolome de Las Casas; poetry and other writings by the 10th muse, Sor Juana Ines de la Cruz, and the criollo posturing of the savant Carlos de Siguenza y Gongora. Additionally, we will discuss the iconic figures of La Malinche and La Virgen de Guadalupe. Some of the concepts / issues to be addressed in the analysis of these texts are: Physical and Epistemological Violence, Divergent Agendas and Interpretations, Resistance and Adaptations, and Silences and Excesses. All writing assignments and class lecture/discussion are in Spanish.

**Style:**
20% Lecture, 80% Discussion.

**Grading:**
20% reports/papers, 10% special projects, 30% journal, 10% in-class presentation, 30% class participation. Participation 30%, Intellectual Journal 30%, Oral Presentations/Discussion Leader 10%, Bibliographic Research Project 10%, Final Research Paper 20%

### SPAN 3401 Latino Immigration and Community Service

A-F only, 3 credit(s); prereq [3015 with grade of at least B-], LPE high pass; Meets CLE req of Civic Life and Ethics;

**Instructor:** Ganley, Kathleen Marie

**Description:** In this service-learning course, students reflect on personal and societal ethics as they analyze U.S. power structures associated with emigration from Latin America and issues confronting societies with a rapid demographic change such as has been the case with Latino immigration in the U.S. Students have many opportunities to engage in dialogue with Latino immigrants. Topics include: the relationship between the global economic system and emigration from Latin America, human rights along the U.S.-Mexican border, federal immigration reform, language issues, and Latino economic and cultural contributions to the U.S. Students reflect on the societal and individual responsibility to create more inclusive and just political, economic, and educational systems for all who live in this country. They are challenged to define and defend their opinions by analyzing specific social power in each topic covered. Students will be expected to connect what they are learning to their lives and to the world around them. Students do many community visits and other civic engagement. Students do 39 hours of community service with Latino immigrants. There is a great variety of service sites available.

### SPAN 3404 Medical Spanish and Community Health Service

3 credit(s); prereq 3015 with grade of at least B- or [1044, high pass on at least three sections of LPE];

**Instructor:** Lopez, Maria Emelce

**Description:** Description: Medical Spanish and Community Health Service, an advanced language and culture course, is designed to train Spanish Studies majors/minors to create materials for effective communication with and education of Spanish-speaking patients. In addition, Span 3404 has a service-learning component in which students apply academic knowledge to work done with community health care partners that serve the Chicago Latino population. It should be noted, however, that students in Span 3404 will but not be involved in direct patient health care.

**Style:**
40% Discussion. student centered culture and special purpose language activities.

**Grading:**
50% other evaluation. Written reports and journals, online writing activities based on CD-ROM interviews, and development of brochure; 20% class participation and other class assignments such as discussion of readings and unit vocabulary quizzes, 30%

### SPAN 3501 Roots of Modern Spain and Latin America

3 credit(s); prereq 3105W; Credit will not be granted if credit has been received for: SPAN 3501H;

**Instructor:** Calvo, Maria Antonia

**Description:** This course offers an historical overview of the cultural, political and economic development of Spain and Latin America from its origins to the beginning of the 19th century. Topics to be discussed include Hispania under the Roman Empire, the coexistence of Jews, Christians and Muslims in Medieval Spain, Mexican and indigenous pre-Hispanic cultures, the arrival of Europeans to the New World, culture in the Golden Age and the crisis of the Spanish Empire. Architecture, historic documents, music, and the visual arts will be integrated to facilitate the students' knowledge of the cultural diversity that is found within the Hispanic world. The goal is to stimulate critical thinking by the students and provide them with an understanding of the specific identities of the various geographic regions as well as the common historical and cultural roots that allow us to speak of a Spanish civilization.

**Style:**
50% Lecture, 50% Discussion.

**Grading:**
20% final exam, 50% reports/papers, 30% class participation.

**Exam Format:**
Essay and short answer

### SPAN 3510 Issues in Hispanic Cultures

A-F only, 3 credit(s), max credits 9, 3 completions allowed; prereq 3105W credit will not be granted if credit received for: Tido 3301, 3302, 3311, 3312, 3313, 3314, 3514, 3321, 3516, 3513, 3515, 3517;

**Instructor:** STAFF

**Description:** In this class we will explore aspects of medieval Iberian history and culture through the lens of several texts that may include, among others, El Cantar de mio Cid, el romancero, el Libro de buen amor and Don Quijote. We will explore how aspects of medieval Iberia such as the Muslim presence, the coexistence of Jews, Muslims and Christians, as well as the relative strength of non-Castilian cultures on the Peninsula became factors in the emergence of what we think of as early modern Spain.

### SPAN 3512 Modern Latin America

A-F only, 3 credit(s); prereq 3105W;

**Instructor:** O’Connell, Joanna

**Description:** The territories collectively known as “Latin America” share elements of a common history as well as extraordinary variety and difference. We will examine some of the ways that one can think about Latin America as both an object of knowledge and as a site of multiple and changing forms of cultural production. We’ll begin with issues of mapping, framing, and perspective to establish some core concepts, then study examples of contemporary cultural production that display how historical legacies and exchanges create meaning. What new meanings emerge as people, foods, songs, images, words and rhythms circulate regionally and globally, and are re-articulated with the local, including in the Twin Cities? We will practice informal and formal writing skills at an advanced level.
including description, summary, analysis and synthesis. Extensive time in class will be dedicated to student-led discussion, and students are therefore responsible for arriving in class ready to take an active role in discussion. Digital literacy in Spanish will also be a component of our work.

**Style:** 15% Lecture, 15% Film/Video, 25% Discussion, 15% Small Group Activities, 10% Student Presentation, 20% Web Based. ACTIVE learning is critical to this class. If you are not willing to be an active learner, this class is not for you.

**Grading:** 20% mid exam, 20% final exam, 30% quizzes, 20% reflection paper, 10% class participation. Students will be expected to read/view materials posted to Moodle BEFORE CLASS, and carefully follow all instructions for advance preparation in order to pass the class.

**Exam Format:** identifications, short essay

**SPAN 3701 Structure of Spanish: Phonology and Phonetics**

3 credit(s); prereq 3107; Credit will not be granted if credit has been received for: SPAN 3701H;
Instructor: Face,Timothy L

**Description:** This course aims to provide undergraduate students with an understanding of the basic concepts of phonetics and phonology and to teach them to apply these concepts to Spanish. The course will be both conceptual and practical. The practical component will involve the students using the concepts learned in class to improve their own pronunciation of Spanish. Students will acquire skills in recognizing, producing, transcribing and describing in linguistic terms the sounds of Spanish and in understanding and analyzing the Spanish sound system. The conceptual component will involve understanding the relationship between sounds in the Spanish phonological system and studying other factors (linguistic, social, etc.) that influence this system.

**Style:** 50% Lecture, 30% Discussion. group activities

**Exam Format:** mixed format

**SPAN 3703 Origins and History of Spanish and Portuguese**

3 credit(s); prereq 3107 or instr consent ;
Instructor: Ocampo,Francisco Antonio

**Description:** This course constitutes an introduction to the origins and history of the Spanish language. The focus of the course is modern Spanish and its relationship with Latin. Phonetic, morphologic, syntactic, lexical, and sociolinguistic aspects will be included. Intermediate stages of evolution will not be considered. Teaching methods include: lectures, group activities, problem solving assignments, discussion. Previous knowledge of Latin is not necessary. Course objectives: Give basic theoretical tools to make students understand language change; Give background knowledge about the history of Spanish; Improve the students' own knowledge of the Spanish language; Inform about the linguistic rules that governed the series of changes from Latin to Spanish. Textbook: Resnick, Melvyn. Introduccion a la historia de la lengua espa?ola. Georgetown University Press, 1981.

**Style:** 40% Lecture, 20% Discussion. Group work

**Grading:** 30% mid exam, 30% final exam, 20% in-class presentation, 10% class participation, 10% problem solving.

**Exam Format:** Essay

**SPAN 3705 Semantics and Pragmatics of Spanish**

3 credit(s); prereq 3107; Credit will not be granted if credit has been received for: SPAN 3705H;
Instructor: STAFF


**SPAN 3800 Film Studies in Spanish: Women and Film in Latin America**

A-F only, 3 credit(s), max credits 9, 3 completions allowed; prereq 3104W or 3105W;
Instructor: Forcinito,Ana

**Description:** Student may contact the instructor or department for information.

**SPAN 3910 Topics in Spanish Peninsular Literature**

A-F only, 3 credit(s), max credits 9, 3 completions allowed; prereq 3104;
Instructor: STAFF

**Description:**

**SPAN 3920 Topics in Spanish-American Literature**

A-F only, 3 credit(s), max credits 9, 3 completions allowed; prereq 3104; Credit will not be granted if credit has been received for: SPAN 3920H;
Instructor: STAFF

**Description:** Literary Ethnography in Twentieth-Century Latin America This course examines the influence of ethnography on the development of Latin American literary production during the twentieth century. The emergence in Europe of ethnological and anthropological fields?of which Latin American intellectuals were often students and contributors?inspired a new lens through which to revalorize the importance of African and indigenous cultures in the region?s colonial and postcolonial legacies. Through discussion and textual analysis of a wide range of essays, poetry, and novels all informed to some degree by an ethnographic view, the class will examine the ways in which this particular mode of discourse reflects and renegotiates the dynamics of dominance and resistance in Latin America.

**SPAN 3970 Directed Studies**

1-4 credit(s), max credits 9, 3 completions allowed; prereq instr consent , dept consent , college consent credit will not be granted if credit received for: SPAN 3303, Tido 3315, Tido 3503, Tido 3970, Tido 3217;
Instructor: STAFF

**Description:** Guided individual reading or study. Consult with the Undergraduate Advisor: Margaret Demmessie.

**SPAN 3972W Graduation Seminar**

A-F only, 3 credit(s); prereq 31 cr of 3xxx, instr consent ;
Credit will not be granted if credit has been received for: SPAN 3972W; Meets CLE req of Writing Intensive;
Instructor: Ferran,Ofelia

**Description:** Student may contact the instructor or department for information.

**SPAN 3972W Graduation Seminar**

A-F only, 3 credit(s); prereq 31 cr of 3xxx, instr consent ;
Credit will not be granted if credit has been received for: SPAN 3972W; Meets CLE req of Writing Intensive;
Instructor: Ramos-Garcia,Luis A

**Description:** Student may contact the instructor or department for information.

**SPAN 4001 Beginning Spanish**

2 credit(s); prereq Grad student;
Instructor: Leonard,Molly A

**Description:** Student may contact the instructor or department for information.

**SPAN 4003 Intermediate Spanish**

2 credit(s); prereq Grad student;
Instructor: Eiffler,Edward E

**Description:** Student may contact the instructor or department for information.

**SPAN 4003 Intermediate Spanish**

2 credit(s); prereq Grad student;
Instructor: Arozamena,Vanesa

**Description:** Student may contact the instructor or department for information.

**SPAN 4004 Intermediate Spanish**

2 credit(s); prereq Grad student;
Instructor: Corbin,Megan L

**Description:** Student may contact the instructor or department for information.

**SPAN 4004 Intermediate Spanish**

2 credit(s); prereq Grad student;
Schedule.

Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class. This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online University of Minnesota - Course Guide for Twin Cities Campus Fall 2010.

SPAN 5985 Sociolinguistic Perspectives on Spanish in the United States
3 credit(s); prerequisite three 3xxx or 5xxx linguistics courses in Spanish or instructor consent; Instructor: Klee, Carol, Anne

Description: Spanish has had a presence in the North American territory that today constitutes the United States since the sixteenth century and its use has expanded extraordinarily since that time, particularly over the past fifty years. In Spanish 5985 we will examine issues such as the following in the diverse Spanish-speaking communities across the U.S.: the social, economic, and attitudinal factors that affect language maintenance and language shift in different Spanish-speaking communities; code-switching (i.e., the alternate use of Spanish and English), when it occurs and why, and what it reveals about the speakers' underlying competence in both languages; Spanglish, what it is, who uses it and in what circumstances; attitudes of Spanish-speakers towards Spanish, English and varieties of Spanish have changed in bilingual communities; language policy issues, such as bilingual education and the English Only movement. The texts for the course include Rosaura Sanchez's Chicano Discourse. Socio-historical Perspectives, Carmen Silva-Corvalan's Language Contact and Change: Spanish in Los Angeles, and Ana Celia Zentella's Growing up Bilingual: Puerto Rican Children in New York, as well as selected articles.

Style: 30% Lecture, 30% Discussion, 30% Small Group Activities, 10% Student Presentation.

Grading: 30% mid exam, 30% final exam, 25% reports/papers, 5% class participation.

Exam Format: Essay

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 completions allowed; prerequisite instructor consent, department consent, college consent; Instructor: O'Connell, Joanna

Description: Students may contact the instructor or department for information.

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 completions allowed; prerequisite instructor consent, department consent, college consent; Instructor: Ferran, Ofelia

Description: Students may contact the instructor or department for information.

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 completions allowed; prerequisite instructor consent, department consent, college consent; Instructor: Ocampo, Francisco Antonio

Description: Students may contact the instructor or department for information.

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 completions allowed; prerequisite instructor consent, department consent, college consent; Instructor: Spadaccini, Nicholas

Description: Students may contact the instructor or department for information.

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 completions allowed; prerequisite instructor consent, department consent, college consent; Instructor: Ramos-Garcia, Luis A

Description: Students may contact the instructor or department for information.

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 completions allowed; prerequisite instructor consent, department consent, college consent; Instructor: Spadaccini, Nicholas

Description: Students may contact the instructor or department for information.

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 completions allowed; prerequisite instructor consent, department consent, college consent; Instructor: Face, Timothy L

Description: Students may contact the instructor or department for information.

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 completions allowed; prerequisite instructor consent, department consent, college consent; Instructor: Forcinito, Ana

Description: Students may contact the instructor or department for information.

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 completions allowed; prerequisite instructor consent, department consent, college consent; Instructor: Hanneken, Jaime Elizabeth
SLHS 1301W The Physics and Biology of Spoken Language
4 credit(s); Meets CLE req of Physical Sciences; meets CLE req of Writing Intensive;
Instructor: Zhang,Yang
Description: This 4-credit introductory course covers a wide range of interesting topics on spoken language and human communication with no prerequisites. These topics include historical perspectives and current research on speech production, animal communication systems, speech and musical acoustics, speech perception, speech development, cross-language comparisons, techniques used in speech analysis, machine recognition of speech, brain processing of speech information, brain imaging techniques, speech evolution, and implications for language-impaired populations. The trek through the history of speech technology will begin with Kratzenstein, who designed the first speech synthesizer in 1179, and end with an examination of the ways in which current research from disciplines such as physics, biology, psychology, linguistics, speech and hearing science, and so forth contributes to our understanding of the physics and biology of spoken language. Lectures will be supported by computer animations and online videos that show, in slow motion, rapidly changing dynamic events in the articulatory system, the auditory system, and the brain. Hands-on laboratory sessions are led by experienced teaching assistants in the graduate program of the speech-language-hearing sciences. Most course materials, including answers to study guides and practice tests are available online through the WebVista system of the university. After completing this course, students should be able to 1) Analyze and identify basic acoustic features of speech, music, or other sounds. 2) Demonstrate knowledge about the relationship between the physical speech signal, the physiological activities that make the sound (production), and the psychological response to the signal (perception). 3) Demonstrate understanding of the complex nature of speech and language. 4) Show that they understand the basics of the development of speech and language, modern speech technology, and modern techniques of studying human information processing. 5) Work together as a team for lab projects and learn through empirical work. Course features: - Meets CLE req of Physical Science/Lab Core - Meets CLE req of Writing Intensive - No prerequisite required - Offered in Fall and Spring semesters
Style: 60% Lecture, 5% Film/Video, 20% Discussion, 5% Laboratory, 5% Small Group Activities, 5% Demonstration.
Grading: 50% mid exam, 25% final exam, 5% quizzes, 20% laboratory evaluation.
Exam Format: Multiple choice

SLHS 1401 Communication Differences and Disorders
3 credit(s); Credit will not be granted if credit has been received for: SLHS 3401; Meets CLE req of Social Sciences;
Instructor: STAFF
Description: Human communication is a complex interpersonal process that involves speech, language, and hearing. These three aspects of communication are made up of neurological, cognitive, sensory, anatomical, and physiological components, which come together and develop within social contexts. Functional communication skills are necessary to successfully participate in all aspects of society and any breakdown in speech, language or hearing will have an impact on one’s daily life-at-home, school, work, and/or community settings. In order to determine if a communication disorder exists, we need to have a clear understanding of what constitutes “normal” communication. The definition of what is normal or acceptable speech, language, and hearing behavior may vary according to age, gender, language or dialectal background, and culture. Thus, these factors must be considered when identifying and treating communication disorders. This course will survey a range of communication disorders affecting children and adults, and will explore the origin, assessment, and treatment of these disorders within the context of current human variation. Reference to the professional fields of speech-language pathology and audiologu will be given throughout the semester.
SLHS 3302 Anatomy and Physiology of the Speech and Hearing Mechanisms
3 credit(s);
Instructor: STAFF
Description: Student may contact the instructor or department for information.

SLHS 3401 Communication Differences and Disorders
3 credit(s); Credit will not be granted if credit has been received for: SLHS 1401; Meets CLE req of Social Sciences;
Instructor: STAFF
Description: Human communication is a complex interpersonal process that involves speech, language, and hearing. These three aspects of communication are made up of neurological, cognitive, sensory, anatomical, and physiological components, which come together and develop within social contexts. Functional communication skills are necessary to successfully participate in all aspects of society and any breakdown in speech, language or hearing will have an impact on one's daily life at home, school, work, and/or community settings. In order to determine if a communication disorder exists, we need to have a clear understanding of what constitutes "normal" communication. The definition of what is normal or acceptable speech, language, and hearing behavior may vary according to age, gender, language or dialectal background, and culture. Thus, these factors must be considered when identifying and treating communication disorders. This course will survey a range of communication disorders affecting children and adults, and will explore the origin, assessment, and treatment of these disorders within the context of normal human variation. Reference to the professional fields of speech-language pathology and audiology will be given throughout the semester.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Carney,Arlene Earley
Description: Student may contact the instructor or department for information.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Angerman,Sarah Kay
Description: Student may contact the instructor or department for information.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Deruiter,Mark
Description: Student may contact the instructor or department for information.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Finestack,Lizbeth Haller
Description: Student may contact the instructor or department for information.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Schlauch,Robert S
Description: Student may contact the instructor or department for information.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Windsor,Jennifer
Description: Student may contact the instructor or department for information.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Reichle,Joe E
Description: Student may contact the instructor or department for information.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Kennedy,Mary R T
Description: Student may contact the instructor or department for information.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Nelson,Peggy B
Description: Student may contact the instructor or department for information.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Köhnert,Kathryn
Description: Student may contact the instructor or department for information.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Munson,Benjamin
Description: Student may contact the instructor or department for information.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Watson,Peter J
Description: Student may contact the instructor or department for information.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Zhang,Yang
Description: Student may contact the instructor or department for information.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Rao,Aparna
Description: Student may contact the instructor or department for information.

SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed;
prereq See dir of undergrad studies for [thesis adviser, forms];
Instructor: Sasisekaran,Jayanthi
Description: Student may contact the instructor or department for information.
SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Carney,Arlene Earley
Description: Student may contact the instructor or department for information.

SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Angerman,Sarah Kay
Description: Student may contact the instructor or department for information.

SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Derruiter,Mark
Description: Student may contact the instructor or department for information.

SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Reichle,Joe E
Description: Student may contact the instructor or department for information.

SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Windsor,Jennifer
Description: Student may contact the instructor or department for information.

SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Kennedy,Mary R T
Description: Student may contact the instructor or department for information.

SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Reichle,Joe E
Description: Student may contact the instructor or department for information.

SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Kennedy,Mary R T
Description: Student may contact the instructor or department for information.

SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Nelson,Peggy B
Description: Student may contact the instructor or department for information.

SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Kohnert,Kathryn
Description: Student may contact the instructor or department for information.

SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Munson,Benjamin
Description: Student may contact the instructor or department for information.

SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Watson,Peter J
Description: Student may contact the instructor or department for information.

SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Zhang,Yang
Description: Student may contact the instructor or department for information.

SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Rao,Aparna
Description: Student may contact the instructor or department for information.

SLHS 3994 Directed Research
1-12 credit(s), max credits 24; prereq Undergrad doing research;
Instructor: Sasisekaran,Jayanthi
Description: Student may contact the instructor or department for information.

SLHS 4301 Introduction to the Neuroscience of Human Communication
3 credit(s);
Instructor: Kennedy,Mary R T
Description: This course is intended to provide students with an overview of neuroanatomy, neurophysiology, and neuroscience pertinent to processes of human communication behavior. Although it is intended for students who are majoring in Speech-Language-Hearing Sciences, students with some science background are welcome to enroll. Emphasis is on structural and functional relationships necessary for speech, language and hearing, although a general knowledge of the nervous system is first required. Topics include: gross anatomy of central and peripheral nervous systems; basic principles of neuroscience; neural embryological development; neuroplasticity; motor and sensory systems; visual and auditory systems; and hemisphere and cortical organization. An overview of current diagnostic techniques and examples of clinical neuropathologies that result in communication disorders are also introduced.
Exam Format: multiple choice, T/F, short essay, labeling, fill-in-blank
Grading: 20% mid exam, 25% final exam, 25% quizzes, 10% laboratory evaluation, 20% other evaluation. 2nd midsemester exam
Style: 70% Lecture, 10% Discussion, 20% Laboratory.

SLHS 4402 Assessment and Treatment in Speech-Language Pathology
A-F only, 3 credit(s); prereq [[1401 or 3401], 3302, 3303, 3304, [4301 or Concurrent registration is required (or allowed) in 4301]] or grad student or instr consent credit will not be granted if credit already received for: SLHS 5402;
Instructor: Finestack,Lizbeth Haller
Description: Student may contact the instructor or department for information.

SLHS 4602 Communication and Problem Behavior
3 credit(s);
Instructor: Reichle,Joe E
Description: This course will describe the environmental bases of problem behavior that young children use to influence the behavior of others. We will examine possible causes of problem behavior, practical assessment strategies to determine variables
associated with problem behavior, and a range of practical approaches to prevent and provide young children with more socially acceptable alternatives to problem behavior. This course is designed for anyone who is a parent of a young child or whose career will result in interactions with young children. At the completion of this course, participants should be: 1. familiar with theories addressing the emergence of problem behavior. 2. familiar with the implications that children with problem behavior have on society 3. familiar with the range of academic and social problems among children who experience significant behavior disorders. 4. familiar with cultural differences in defining and treating children who have behavior problems. 5. familiar with the range of assessment strategies that may be used to determine the social functions that may be maintaining problem behavior. 6. able to interpret results of a variety of assessment strategies. 7. familiar with a variety of intervention strategies designed to reduce or prevent repertoires of socially motivated problem behavior.

Style: 50% Lecture, 30% Discussion. CD Rom interactive activities
Grading: 30% mid exam, 30% final exam, 30% special projects, 10% class participation.
Exam Format: Take home short answer

SLHS 4801 Hearing Measurement and Disorders
3 credit(s); prereq [3302, 3305W] or instr consent
Instructor: STAFF
Description: This course will provide a basic orientation to audiologic assessment and disorders of the auditory system. The course is geared toward students undergraduate students majoring in Speech-Language-Hearing Sciences. The anatomy of the ear and the scope of practice in audiology will be reviewed. Emphasis will be placed on the tests used to assess hearing, including pure-tone audiometry and masking, speech audiometry, immittance, electrophysiological tests, pure-tone screening, and pediatric assessment. Various disorders of the outer, middle, and inner ear will be described. Case management for clients with hearing loss will also be discussed. Students will obtain hands-on experience with otoscopic examination, pure tone audiometry, tympanometry, and hearing screening.
Style: 80% Lecture, 10% Discussion, in-class activities
Grading: 50% mid exam, 30% final exam, 10% quizzes, 10% laboratory evaluation.
Exam Format: Multiple choice, completion, and short answer questions

SLHS 5401 Counseling and Professional Issues
3 credit(s); prereq [concurrent enrollment 8720 or concurrent enrollment 8820], grad student recommended
Instructor: Deruiter,Mark
Description: Basic counseling principles and current professional issues in communication disorders. Application of counseling theory to clinical practice. Analysis of regulation, practice, and future direction of communication disorders.
Style: 80% Lecture, 20% Discussion.
Grading: 40% reports/papers, 40% quizzes, 20% problem solving.
Exam Format: Multiple choice/short answer

SLHS 5501 Fluency and Phonological Disorders
3 credit(s); prereq Grad student or instr consent
Instructor: Sasisekaran,Jayanthi
Description: This course discusses the nature, assessment, and treatment of (a) phonological disorders in children (including articulation disorders and childhood apraxia of speech), and (b) fluency disorders in children and adults. At the conclusion of the course, students will be able to conduct supervised assessment and treatment of phonological disorders in children, and supervised assessment and treatment of fluency disorders in children and adults. This course is primarily concerned with functional disorders, i.e., phonological and fluency disorders of an unknown etiology. Disorders with a known organic etiology (e.g., hearing impairment, neuromotor dysfunction, craniofacial anomaly, neuromotor, stuttering) will be mentioned briefly, and will be covered in more depth in other courses. Course Objectives. At the conclusion of this course, students will be able to: (1) Describe the normal development of fluency and phonology (2) Describe atypical phonological development (3) Describe the speech of people with fluency disorders (4) Administer and interpret assessments of phonology in children (5) Administer and interpret assessments of fluency in children and adults (6) Select treatment goals and behavioral objectives for children with phonological disorders (7) Select treatment goals and behavioral objectives for children and adults with fluency disorders (8) Develop therapy materials to implement treatment goals and objectives
Style: 70% Lecture, 30% Small Group Activities.
Grading: 50% mid exam, 25% final exam, 25% reports/papers.
Grading: 25% mid exam, 25% final exam, 30% special projects, 10% quizzes, 10% in-class presentation.

SLHS 5807 Noise and Hearing Conservation
A-F only, 3 credit(s); prereq [8801, 8802] or [CDIs 8801, CDIs 8802];
Instructor: Nelson, Peggy B
Description: Student may contact the instructor or department for information.

SLHS 5810 Laboratory Module in Audiology
1-2 credit(s), max credits 5, 5 completions allowed; prereq 4801 or CDIs 4801 or instr consent;
Instructor: Gregan, Melanie J
Description: Student may contact the instructor or department for information.

SLHS 5820 Clinical Research and Practice: Grand Rounds
S-N only, 1-6 credit(s), max credits 6, 6 completions allowed; prereq 4801 or CDIs 4801 or equiv or instr consent;
Instructor: Schlauch, Robert S
Description: Student may contact the instructor or department for information.

SLHS 5830 Clinical Foundations in Audiology
S-N only, 1-8 credit(s), max credits 24, 24 completions allowed; prereq Grad SLHS major;
Instructor: Deruiter, Mark
Description: Student may contact the instructor or department for information.

SLHS 5900 Topics: Communication Disorders
1-4 credit(s), max credits 8;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

SLHS 5993 Directed Study
1-12 credit(s), max credits 18, 18 completions allowed; prereq instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

SLHS 8430 Proseminar in Speech-Language-Hearing Sciences
S-N only, 1 credit(s), max credits 10, 10 completions allowed; prereq intended for students in Department of Speech-Language-Hearing Sciences;
Instructor: Nelson, Peggy B
Description: Student may contact the instructor or department for information.

SLHS 8530 Seminar: Speech
3 credit(s), max credits 12, 4 completions allowed;
Instructor: Zhang, Yang
Description: This seminar introduces brain imaging techniques for auditory neuroscience, speech and language research. Selected imaging methods, including electroencephalography and event-related potential (EEG/ERP), MEG (magnetoencephalography), OT (optical topography), and fMRI (functional Magnetic Resonance Imaging), are discussed. Students will gain basic knowledge of cognitive neuroscience of speech and language in four main areas: (a) theory, (b) experimental design, (c) data collection, analysis, and interpretation, and (d) issues for studying special populations. Basic tutorials on major imaging software packages include ASA, BESA, BrainVoyager, Neuromag, and EEGLAB. Research topics include speech perception, speech production, phonological processing, syntactic processing, semantic processing, language acquisition. Opportunities are also provided for students to gain hands-on experience in EEG/ERP research. More information about the facilities is available at the Zhanglab web site.
Style: 30% Lecture, 30% Discussion, 20% Laboratory, 20% Student Presentation.
Grading: 30% reports/papers, 30% in-class presentation, 20% class participation, 10% laboratory evaluation, 10% problem solving.

SLHS 8630 Seminar: Language
3 credit(s), max credits 12, 4 completions allowed;
Instructor: Kennedy, Mary R T
Description: Self-regulation has been characterized as an executive control process, associated with frontal lobe and cingulate activity. Various theories about self-regulation will be explored, including its neurobiology, and issues related to training and generalization. Readings will include selections from the Handbook of Self-Regulation and current research of SR in typically developing children and adults, as well as populations with special needs, such as those with attention deficit disorder, individuals with challenging behavior, language-learning disabilities, brain injury, etc. Graduate students in speech-language-hearing sciences, cognitive psychology, child development, neuropsychology and rehabilitation are encouraged to enroll. Students will have the opportunity to research the scientific literature as it applies to their discipline and interests.
Style: 20% Lecture, 60% Discussion, 20% Student Presentation.
Grading: 35% reports/papers, 35% special projects, 30% in-class presentation.

SLHS 8720 Clinical Education in Speech-Language Pathology
S-N only, 1-8 credit(s), max credits 24, 24 completions allowed; prereq Grad CDIs major, adviser, DGS consent;
Instructor: Deruiter, Mark
Description: Student may contact the instructor or department for information.

SLHS 8803 Signals and Systems in Audiology
3 credit(s); prereq [3305, 3306, 4801] or [CDIs 3305, CDIs 3306, CDIs 4801] or instr consent;
Instructor: Schlauch, Robert S
Description: Student may contact the instructor or department for information.

SLHS 8820 Clinical Education in Audiology
S-N only, 1-8 credit(s), max credits 24, 24 completions allowed; prereq Grad CDIs major;
Instructor: Deruiter, Mark
Description: Student may contact the instructor or department for information.

SLHS 8840 Audiology Externship
S-N only, 1-7 credit(s), max credits 3, 3 completions allowed; prereq [8802, 8807] or [CDIs 8802, CDIs 8807];
Instructor: Deruiter, Mark
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 completions allowed; prereq instr consent;
Instructor: Carney, Arlene Earley
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 completions allowed; prereq instr consent;
Instructor: Angerman, Sarah Kay
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 completions allowed; prereq instr consent;
Instructor: Deruiter, Mark
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 completions allowed;
SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 completions allowed;
prereq instr consent;
Instructor: Rao,Aparna
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 completions allowed;
prereq instr consent;
Instructor: Zhang,Yang
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 completions allowed;
prereq instr consent;
Instructor: Watson,Peter J
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 completions allowed;
prereq instr consent;
Instructor: Munson,Benjamin
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 completions allowed;
prereq instr consent;
Instructor: Zhang,Yang
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 completions allowed;
prereq instr consent;
Instructor: Rao,Aparna
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 completions allowed;
prereq instr consent;
Instructor: Sasiskar,Jayanthi
Description: Student may contact the instructor or department for information.

Sport Management
220 Cooke Hall

SMGT 1701 Introduction to Sport Management
A-F only, 2 credit(s);
Instructor: Richardson,Tiffany
Description: Scope/motive of the study of sport from sociological, psychological, historical, economic, and scientific perspective. Issues in sport.

SMGT 1905 Freshman Seminar: Jerry McGuire: Contracts, Negotiation & Agency Law
OPT No Aud, 3 credit(s), max credits 6; prereq Fr;
Instructor: Allison JD,Rayla
Description: Interdisciplinary seminar. Topics specified in Class Schedule.

SMGT 3111 Sports Facility and Event Management
A-F only, 3 credit(s); prereq SMGT major or instr consent;
Instructor: Richardson,Tiffany
Description: Aspects of managing sport facilities/events. Conceptualization of sports events. Event management planning process, budgeting, site selection, booking, ticketing, sponsorship.

SMGT 3143 Organization and Management of Sport
A-F only, 3 credit(s); prereq SMGT major;
Instructor: Houghton,Emily Jane
Description: Designed to focus on the principles, policies, and procedures involved in the administration and management of sports programs at the interscholastic and intercollegiate levels.

SMGT 3421 Business of Sport
A-F only, 3 credit(s); prereq SMGT or kin or rec major or instr consent;
Instructor: Gaddey Jr,Roy Arthur

SMGT 3501 Sport in a Diverse Society
A-F only, 3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Social Sciences;
Instructor: Buyse,Jo Ann
Description: There can be no question that sport is currently a prevalent social institution in North America. Clearly, sport and patterns of physical activity are symbolic of the larger socio-cultural order. This course is designed to examine the pervasive and significant relationships between the social constructions of sport and physical activity to contemporary social institutions such as politics, religion, economics, education and mass media. It will introduce students to a broad perspective of social issues related to sport. In addition it will afford students the opportunity to critically explore and increase their understanding of how specific social categories such as age, gender, race, sex, social class, religion, sexual orientation and physical disabilities, intersect to influence participation and experiences of individuals within sport and physical activity contexts. In short, students will explore the ‘deeper game’ through which sports and physical activities become an integral part of the social and cultural worlds in which we live. Sport sociology is located within the discipline of social science and this course is designed to meet the criteria for the liberal education social science core (SScI). In this course students will be introduced to the ways of knowing within the social science
Students will learn about social science including theories, the methods by which social scientists collect, analyze and interpret data, and how social scientists interpret and explain human behavior within sport and physical activity contexts. Students will develop critical thinking and reflection skills, broaden their ways of knowing and thinking about what they know, and have ample opportunity to hone discussion and writing skills.

**SMGT 3501 Sport in a Diverse Society**  
A-F only, 3 credit(s);  
Meets CLE req of Diversity and Soc Justice US; meets CLE req of Social Sciences;  
Instructor: LaVoi, Nicole Marie  
**Description:** Relationship between sport and contemporary social institutions. Groups/individuals who have historically been marginalized or excluded from sport participation. Race, sex, social class, sexual orientation, physical (dis)abilities. There can be no question that sport is currently a prevalent social institution in North America. Clearly, sport and patterns of physical activity are symbolic of the larger socio-cultural order. This course is designed to examine the pervasive and significant relationships between the social constructions of sport and physical activity to contemporary social institutions such as politics, religion, economics, education and mass media. It will introduce students to a broad perspective of social issues related to sport. In addition it will afford students the opportunity to critically explore and increase their understanding of how specific social categories such as age, gender, race, sex, social class, religion, sexual orientation and physical disabilities, intersect to influence participation and experiences of individuals within sport and physical activity contexts. In short, students will explore the `deeper game’ through which sports and physical activities become an integral part of the social and cultural worlds in which we live. Students will develop critical thinking, reflection, reading, discussion and writing skills and learn the meaning and value of a liberal education.

**Style:** 70% Lecture, 5% Film/Video, 15% Discussion, 5% Small Group Activities, 5% Student Presentation  
**Grading:** 25% mid exam, 25% final exam, 40% reports/papers, 10% attendance.

**SMGT 3501 Sport in a Diverse Society**  
A-F only, 3 credit(s);  
Meets CLE req of Diversity and Soc Justice US; meets CLE req of Social Sciences;  
Instructor: Bhalla, Jennifer Anita  
**Description:** There can be no question that sport is currently a prevalent social institution in North America. Clearly, sport and patterns of physical activity are symbolic of the larger socio-cultural order. This course is designed to examine the pervasive and significant relationships between the social constructions of sport and physical activity to contemporary social institutions such as politics, religion, economics, education and mass media. It will introduce students to a broad perspective of social issues related to sport. In addition it will afford students the opportunity to critically explore and increase their understanding of how specific social categories such as age, gender, race, sex, social class, religion, sexual orientation and physical disabilities, intersect to influence participation and experiences of individuals within sport and physical activity contexts. In short, students will explore the `deeper game’ through which sports and physical activities become an integral part of the social and cultural worlds in which we live. Students will develop critical thinking, reflection, reading, discussion and writing skills and learn the meaning and value of a liberal education.

**SMGT 3993 Directed Study in Sport Management**  
A-F only, 1-3 credit(s), max credits 3, 3 completions allowed;  
prereq Undergrad, instr consent;  
Instructor: Buysse, Jo Ann  
**Description:** Students work with faculty and grad students on research, scholarly, or creative activities. Students assist with faculty scholarship or carry out projects under faculty supervision.
STAT 1001 Introduction to the Ideas of Statistics
4 credit(s); prereq Mathematics requirement for admission to University; Meets CLE req of Mathematical Thinking
Instructor: STAFF
Description: Introduction to the Ideas of Statistics is a course that teaches the basic ideas of statistics without getting bogged down in equations, Greek letters, and complicated calculations. Conceptual issues, which make the difference between valid and bogus uses of statistics, are faced squarely and not "dumbed down" but the mathematics is kept simple and explained in plain English, graphs, and diagrams. Topics covered are design of experiments (what makes a valid scientific experiment), descriptive statistics (histograms, the bell-shaped curve, and all that), regression and correlation, probability and the law of averages, chance variability of statistical estimates, the accuracy of polls and sample surveys, and the use of data as evidence in testing and plausibility of claims made about populations.
Style: 75% Lecture, 25% Laboratory.
Grading: 40% mid exam, 40% final exam, 20% problem solving.
Exam Format: essay, problem solving and multiple choice

STAT 3011 Introduction to Statistical Analysis
4 credit(s); Credit will not be granted if credit has been received for: STAT 5021; Meets CLE req of Mathematical Thinking
Instructor: STAFF
Description: This course provides an introduction to basic methods of statistics, including descriptive statistics, elementary probability ideas and random variables, distributions of sample averages. One and two sample t-procedures, simple linear regression, basic ANOVA. The target audience is undergraduates from all majors. Stat 3011 and Stat 3021 are both entry courses into the statistics curriculum for undergraduates.
Exam Format: problem solving

STAT 3021 Introduction to Probability and Statistics
3 credit(s); prereq Math 1272;
Instructor: STAFF
Description: This course will start with an introduction of probability, including interpretations of probability, axioms of probability, and the use of counting methods for solving probability problems, conditional probability, Bayes theorem, independence, random variables and distributions, expected values, the binomial, Poisson, normal and other distributions, the law of large numbers, and the central limit theorem. Then we will cover applications of the above to the theory of statistical inference, including estimation, confidence intervals, and hypothesis tests.
Style: 100% Lecture.
Grading: 45% mid exam, 45% final exam, 10% problem solving.
Exam Format: Problem solving

STAT 4032 Data Analysis
4 credit(s); prereq 3011 or 3021;
Instructor: STAFF
Description: Further topics in regression and ANOVA; non-parametric methods; model selection and verification; writing statistical reports; use of statistical software; additional selected topics.

STAT 5011 Theory of Statistics I
4 credit(s); prereq Math 1272; Credit will not be granted if credit has been received for: STAT 5101;
Instructor: Okabayashi,Sai
Description: Student may contact the instructor or department for information.

STAT 4893W Senior Paper
1 credit(s); prereq Stat major; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: STAT 4893W is a requirement for a BA in Statistics in CLA. It also fulfills the University requirement of a Writing Intensive course in the major. It can be satisfied in several ways including but not limited to directed study culminating in a paper on a specialized area of Statistics (most common choice), carrying out a "case study" involving data collection and analysis and a report, and writing and documenting a computer program to implement a nontrivial statistical technique. Students should enroll in any semester of their Senior year. If work is unfinished at semester end (as frequently happens), an incomplete (I) is usually granted. The topic of the paper should be chosen in consultation with a Statistics faculty supervisor. Frequently this faculty member will be the student's instructor in STAT 5xxx, and the paper will build from the course. See http://www.stat.umn.edu/ugrad/stat4893.html for more information.
Grading: 100% reports/papers.

STAT 5021 Statistical Analysis
4 credit(s); prereq credit will not be granted if credit received for: 3011; College algebra or instr consent; Stat course recommended; Credit will not be granted if credit has been received for: STAT 3011;
Instructor: STAFF
Description: The primary audience for this course is graduate students in non-statistics- major programs who need statistical competence. Typical needs would be the analysis of data using common statistical methods, the design of single-factor experiments and the ability to read journal articles and assess their statistical content critically. After completion of the course, students are able to carry out one-and-two sample tests, set up
confidence intervals for means, proportions and differences in means and proportions. They can fit single-predictor regressions and one-way analysis of variance, along with checks of the model assumptions underling theses methods. The course includes a brief non-calculus introduction to probability theory and statistical distributions.

**Style:** 50% Lecture, 25% Discussion, 25% Laboratory.

STAT 5101 Theory of Statistics I
4 credit(s); prereq MATH 2263 or MATH 2374; Credit will not be granted if credit has been received for: STAT 4101;
Instructor: Yang,Yuhong
Description: Student may contact the instructor or department for information.

STAT 5101 Theory of Statistics I
4 credit(s); prereq MATH 2263 or MATH 2374; Credit will not be granted if credit has been received for: STAT 4101;
Instructor: Yang,Yuhong
Description: Student may contact the instructor or department for information.

STAT 5101 Theory of Statistics I
4 credit(s); prereq MATH 2263 or MATH 2374; Credit will not be granted if credit has been received for: STAT 4101;
Instructor: Zou,Hui
Description: Student may contact the instructor or department for information.

STAT 5303 Designing Experiments
4 credit(s); prereq 3022 or 4102 or 5021 or 5102 or instr consent;
Instructor: Oehlert,Gary W
Description: This course covers basic experimental designs, when to use them, and how to analyze the results. We cover: completely randomized designs, factorial treatment structures, random and mixed effects models, complete and incomplete blocks, covariates, split plots, and response surfaces. Primarily lecture based, with discussion and computer work in the lab. This course is aimed at nonstatistics graduate students, but advanced undergraduates can also attend.

**Style:** 90% Lecture, 10% Laboratory.

**Grading:** 40% mid exam, 25% final exam, 15% special projects, 20% written homework.

**Exam Format:** problem solving

STAT 5421 Analysis of Categorical Data
3 credit(s); prereq 5302 or instr consent;
Instructor: Qiu,Pelihua
Description: See Graduate School Catalog, 1999-2001

**Style:** 80% Lecture, 20% Laboratory.

**Grading:** 40% mid exam, 40% final exam, 20% problem solving.

STAT 5601 Nonparametric Methods
3 credit(s); prereq 3022 or 4102 or 5021 or 5102 or instr consent;
Instructor: Chatterjee,Singhdansu Bhusan
Description: Student may contact the instructor or department for information.

STAT 5931 Topics in Statistics: Model Selection
3 credit(s);
Instructor: Zou,Hui
Description: Student may contact the instructor or department for information.

STAT 5993 Tutorial
1-6 credit(s), max credits 12, 12 completions allowed; prereq instr consent;
Instructor: STAFF
Description: Students may contact the department for information.

STAT 8051 Applied Statistical Methods 1: Computing and Generalized Linear Models
A-F only, 4 credit(s); prereq Statistics grad major or instr consent;
Instructor: Qiu,Pelihua
Description: Student may contact the instructor or department for information.

STAT 8053 Applied Statistical Methods 3: Multivariate Analysis and Advanced Regression
A-F only, 4 credit(s); prereq 8052, 8102;
Instructor: Weisberg,Sanford
Description: Student may contact the instructor or department for information.

STAT 8101 Theory of Statistics I
4 credit(s); prereq Statistics grad major or instr consent;
Instructor: Jiang,Tiefeng
Description: Student may contact the instructor or department for information.

STAT 8111 Mathematical Statistics I
3 credit(s); prereq [5102 or 8102 or instr consent], [[Math 5615, Math 5616] or real analysis], matrix algebra;
Instructor: Jones,Galin
Description: Student may contact the instructor or department for information.

STAT 8321 Regression Graphics
3 credit(s); prereq 8311;
Instructor: Cook,R. Dennis
Description: Student may contact the instructor or department for information.

STAT 8813 Literature Seminar
S-N only, 1 credit(s), max credits 4, 4 completions allowed;
prereq Statistics grad major or instr consent;
Instructor: Meeden,Glen Dale
Description: Student may contact the instructor or department for information.

STAT 8931 Advanced Topics in Statistics: Stochastic Dynamic Programming & Games
3 credit(s), max credits 12, 4 completions allowed;
Instructor: Sudderth,William D.
Description: Student may contact the instructor or department for information.

STEM Cell Biology
**STEM Cell Institute**

**STEM Cell 5051 Stem Cell Biology Practical Training Module**
A-F only, 1 credit(s); prereq Acceptance into stem cell biology master's program;
Instructor: Slack,Jonathan M W
Description: This is a one credit course that is an integral part of the M.S. in Stem Cell Biology. It is not open to students on other programs. This is an Intensive two-week course that provides hands-on instruction in techniques of tissue culture, conventional, fluorescence, and confocal microscopy, and flow cytometry for both analysis of cell populations and sorting of cells.

**Style:** 100% Laboratory.

**Grading:** Assessment is by lab writeup and interview.

**STEM Cell 5054 Stem Cell Institute Research Seminar and Journal Club**
S-N only, 2 credit(s), max credits 6, 3 completions allowed;
prereq Acceptance into stem cell biology [master's prog or PhD minor prog] or instr consent;
Instructor: Keirstead,Susan Alice
Description: The objectives of this course are to expose students to current research in Stem Cell Biology through attendance at weekly seminars and participation in a weekly...
journal club. Seminars are presented by members of the University of Minnesota research community as well as researchers from elsewhere in the United States and beyond. The journal club provides an opportunity for students to read current primary research papers and to gain insights into the research through discussions of the results and implications of the papers among members of the Stem Cell Institute.

**Style:** 45% Discussion, 5% Student Presentation, 50% Guest Speakers.

**Grading:** 50% written homework, 40% in-class presentation, 10% class participation.

**STEM Cell 8181 Stem Cell Biology**

3 credit(s); prereq [[GCD 4034 or 8121 or BIOC 8002], [GCD 4161 or 8161]] or instr consent ;

**Instructor:** Slack, Jonathan M W

**Description:** Course Objectives: The course aims to provide beginning graduate students with an overview of stem cell biology. It will cover the biology of embryonic and adult stem cells, and be based on principles of developmental biology. Although primarily a biological science course it will include brief consideration of the ethical and legal aspects of embryonic stem cells, and some examples of clinical applications of cell therapy. Students will be expected to read primary research literature. Course topics: Embryonic stem cells; biochemistry of pluripotency; neural and hematopoietic stem cells; cell production and renewal in heart, skeletal muscle, kidney, pancreas and skin. Ethical and legal issues raised by embryonic stem cell work; clinical cell therapy in selected areas. Course director: Dr. Jonathan Slack. Because this is a team taught course, the director will ensure that the content is cohesive and non-redundant.

**Style:** 75% Lecture, 25% Student Presentation.

**Grading:** 20% mid exam, 50% final exam, 25% in-class presentation, 5% class participation.

**Exam Format:** Two in-class tests Final Exam - take home written exam

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**SCMC 3001 Critical Debates in the Study of Cinema and Media Culture**

4 credit(s); [CSCL 1201], Meets CLE req of Arts/Humanities;

**Instructor:** STAFF

**Description:** The emergence of what is variously referred to as the "Information Age" and "Society of the Spectacle" has made it necessary for us to think critically about the media. Since visual media have the most pervasive influence on our everyday lives, this course will focus on how forms such as advertising, film, and television work, affect perception, and structure meaning. We will read some of the most important theoretical and historical texts that provide insight into our "ways of seeing." No prior exposure to media theory is expected, but although this is an introductory class, students will be expected to read and work through challenging material. We will read a variety of critics who have attempted to analyze cinema and media culture and we will also begin to develop a vocabulary for formal visual analysis.

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**SCMC 5001 Critical Debates in the Study of Cinema and Media Culture**

4 credit(s);

**Instructor:** Ganguly, Keya

**Description:** This course is intended as a "capstone" experience for majors in cinema and media studies. Its goal is to provide students with a historical overview of the most critical debates in the past century in film and media culture (although, by definition, the course cannot serve an exhaustive review of everything). Accordingly, students will be expected to have prior acquaintance with the basic concepts, vocabularies, and trends prevalent in cinema and media studies -- so that the problems at issue can now be engaged as a series of debates (rather than as discrete pieces of thinking or writing). We will encounter historical debates (e.g., the mass culture debates, the debate about orality vs literacy, as well as the debates over "culture"); theoretical debates (e.g., regarding the nature of the "apparatus," the status of ideology, the question of the audience or "reception"); and, finally, debates about cinema and globalization (e.g., cultural imperialism, "Third Cinema," and "scopic" vs "alternative" modernities). Student participation in class discussion is important -- since students will be required to take up different sides of the debates under question.

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**SCMC 3201 Fundamentals of Digital Filmmaking**

A-F only, 4 credit(s); prereq instr consent ;

**Instructor:** Bizri, Hisham M.

**Description:** This course is an introduction to the practice of digital cinema production techniques. The main focus of the course will be practical, affording students ample time to direct, shoot, and edit (including post-production) original works of cinema. In doing so, students will begin to master the use of both optical and digital tools such as the camera, optics, lights, color, and the computer, and to explore how they might draw on other media (music, painting, theater, photography, and sculpture) in their productions. We will inform this practical focus by attending, as well, to how films are made is terms of space, light, action, dramatic structures, montage, and the overall visual vision of master filmmakers.

**Style:** 100% Studio.

**Grading:** 50% special projects, 50% attendance.

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**SCMC 3001W History of Cinema and Media Culture**

4 credit(s); Meets CLE req of Writing Intensive;

**Instructor:** Johnson, Kjel Wayne

**Description:** SCMC 3001 examines "our" contemporary media culture and its artifacts by way of the history and current role of vision and visuality that has become our "window on the world" and the epistemological foundations that inform our (post?)modern understanding of aesthetics, politics, experience, perception, and identity -- in short, the ways in which we "make meaning" of our culture and our place (indeed, placement) within it. Rather than attempt to cover the linear development of the amorphous force called "media culture" (or, worse, to proceed with the idea that such a history is something comprehensible in the limited time we will share in this course), we will instead begin at "the end", with the purported "death of the cinema." From this situation, we will step back, in both scope and time, to explore key concepts and questions regarding the power of the visual as it has taken new forms and functions in Western culture from "the modern" to "the postmodern," the ways in which technological, social, and industrial developments in "the media" have given rise to new theoretical and philosophical perspectives in the academy, and the power, limits, and possibilities of systems of representation as they impact daily life ... all considered in terms of "how we got here," and if "here" is really all we think, see, and know it to be. As such, our journey will be one of a selective travellogue, composed in snapshots torn from the fabric of a larger whole, giving an incomplete but hopefully meaningful image of the complex intersections between media, culture, experience, and scholarship over time.

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**STAFF**

Instructor: [Dr. Jonathan Slack]. Because this is a team taught course, the director will ensure that the content is cohesive and non-redundant.

**Style:** 75% Lecture, 25% Student Presentation.

**Grading:** 20% mid exam, 50% final exam, 25% in-class presentation, 5% class participation.

**Exam Format:** Two in-class tests Final Exam - take home written exam
SUST 8400 Seminar: Science, Technology, and Society
3 credit(s); prereq HSci 8111 or [Phil 8601 or Phil 8602 or Phil 8605] or instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

SUST 8420 Seminar: Social and Cultural Studies of Science
3 credit(s), max credits 6; Credit will not be granted if credit has been received for: PHIL 8660;
Instructor: Seidel, Bob
Description: Student may contact the instructor or department for information.

Sustainability Studies
190 Coffey Hall

SUST 3003 Sustainable People, Sustainable Planet
3 credit(s); prereq Soph or jr or sr; Credit will not be granted if credit has been received for: GLOS 3304; Meets CLE req of Environment;
Instructor: Arnold, Todd W.
Description: Sustainability recognizes that economic growth, social equity, and environmental integrity are all worthy goals, but that these goals compete so that it is impossible to maximize all of them concurrently. Some objectives of sustainability are therefore realized at the cost of other equally valid objectives. Sustainable People, Sustainable Planet provides an historical, ethical and technical overview of various models for understanding sustainability. It also demonstrates, by utilizing a variety of real-world case studies, the conflicts and trade-offs that occur from trying to put sustainability into practice. The course is intended for sophomores and above who are interested in completing the Sustainability Studies Minor, and for all students who are interested in the subject and wish to satisfy the University’s liberal education themes for Environment and Citizenship/Public Ethics. The course should be considered “reading intensive” but it has no prerequisites.
Style: 70% Lecture, 30% Discussion.
Grading: 67% reports/papers, 23% special projects, 10% class participation.

SUST 3480 Topics in Sustainability
A-F only, 3 credit(s), max credits 24, 6 completions allowed;
Instructor: Anderson, Ellen Ruth
Description: This class will give students a basic understanding of the science and ecosystem impacts of climate change, the United Nations Framework on Climate Change (UNFCCC) process, a practical knowledge of the laws and policies relating to climate change and energy in play at the local level, a review of national policies being debated on climate change, and the knowledge students need to understand the United Nations framework and related negotiations on the topic. Students will be equipped with the expertise and understanding they need to observe and participate either virtually or through study abroad in the international negotiations scheduled for November 28-December 19, 2010 in Mexico. Student travel would occur between November 28 and December 6, 2010. Course Goals and Learning Objectives? Learn political, economic, and scientific implications of climate change? Examine diverse perspectives and learn to frame issues effectively? Explore the options for change at all levels, including local, state, regional, national and global? Understand the laws, regulations, and international documents on climate change policy? Learn how to navigate the international UN negotiations process? Create web-based or other strategies for communicating learned concepts Readings will include: Lester Brown, Plan B 5.0, Bill McKibben, Eaarth, Thomas Friedman, Hot, Flat & Crowded, US Global Change Research Project/NOAA Report: Global Climate Change Impacts in the United States; IPCC Fourth Assessment Report: Climate Change 2007 (AR4); James Hansen, Storms of my Grandchildren: Renewable Energy Standard law, Minn. Stat. Sec. 216B.1691, Wind Integration Analysis (Public Utilities Commission 2006); OES wind resource maps; Wind Energy for Electric Power?a REPP Issue Brief (2003); Wind Power: Impacts on Wildlife and Government Responsibilities for Regulating Development and Protecting Wildlife (2005) U.S. GAO and more. Speakers will include staff from Fresh Energy, Windustry, the American Wind Industry Association, the Institute for Local Self Reliance, the Great Plains Institute and key energy research faculty at the University.

SUST 4004 Sustainable Communities
A-F only, 3 credit(s); prereq [GLOS 3304, or jr or sr] in sustainability studies minor or instr consent;
Instructor: Anderson, Ellen Ruth
Description: Student may contact the instructor or department for information.

SUST 4096 Sustainability Internship
A-F only, 1-4 credit(s), max credits 8; prereq Familiarity with sustainability concepts through acad work or other experiences;
Instructor: Wanberg, David
Description: Student may contact the instructor or department for information.

Sustainable Agricultural Systems
411 Borlaug Hall

SAGR 8010 Colloquium in Sustainable Agriculture
A-F only, 2 credit(s); prereq Coursework in biological or social sciences that provides intro to ag practices or issues;
Instructor: Sheaffer, Craig Charles
Description: Study the social, economic, political and environmental aspects of a sustainable agriculture through discussions with experts in the field. Specific topics can include: the history of agriculture and the family farm, government farm policy, the importance of biodiversity for healthy landscapes, rural communities, quality of life, community supported agriculture, organic agriculture, landscape health and non-profit organizations. Teaching approaches will include student, faculty and producer-led discussions. The course will include on-farm visits. Target audience: non-majors and majors interested in sustainable agriculture.

SAGR 8020 Field Experience in Sustainable Agriculture
S-N only, 1-4 credit(s), max credits 3, 1 completion allowed; prereq Coursework in biological or social sciences that provides intro to ag practices or issues;
Instructor: Jordan, Nicholas Royal
Description: Student may contact the instructor or department for information.

Swahili
808 Social Sciences Tower

SWAH 1221 Beginning Swahili, Semester I
5 credit(s);
Instructor: STAFF
Description: Student may contact the instructor or department for information.

SWAH 3225 Intermediate Swahili
5 credit(s); prereq 1 yr Swahili or equiv;
Instructor: Muaka, Angaluki
Description: Student may contact the instructor or department for information.

SWAH 4221 Beginning Swahili I
2 credit(s); prereq Grad student;
Instructor: STAFF
Description: Student may contact the instructor or department for information.
**SWED 1001 Beginning Swedish**

5 credit(s); Credit will not be granted if credit has been received for: SWED 4001;

**Instructor:** STAFF

**Description:** This is the first course in the first-year language instruction sequence (1001-2), designed to develop a basic communicative proficiency in Swedish. Students will practice the four language skills (speaking, writing, reading, and listening) and learn to handle simple, everyday transactions. Class sessions will emphasize interactive communicative activities in pairs and small groups, with a focus on improving listening and speaking skills. Additional class time will be spent on reading, writing, and grammar. Students are expected to practice these skills outside of class as well. Learning about life and culture in Sweden is an integral part of the course. See the description for Swed 4001 for an option for qualified students to register for this course for 2 credits (and lower tuition) instead of 4 credits.

**Style:** 10% Lecture, 70% Discussion, 20% Laboratory.

**Grading:** 100% other evaluation. 50% reading/writing, 50% oral/aural

**Exam Format:** structured exercises in all 4 modalities and grammar, pronunciation, vocabulary and culture

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**SWED 1002 Beginning Swedish**

5 credit(s); Credit will not be granted if credit has been received for: SWED 4002;

**Instructor:** Herrlin, Susanne Marie

**Description:** This course continues the presentation of language skills--speaking, writing, listening and reading begun in Swedish 1001-2 (or quarter system courses 1101-2-3). Students will review, examine and develop these skills through a content-based curriculum. Students will be introduced to a variety of Swedish texts--stories, songs, newspaper articles, video and Internet resources. The review of basic points of Swedish grammar with an emphasis on sentence structure and word order will enable students to improve their writing skills in connection with process-oriented writing assignments. Vocabulary building will be supported by a rich array of texts that the students will be reading during their second year. Speaking and listening will be practiced in role play activities involving representive social situations. The interactive will familiarize students with the different levels of formality and intimacy used in conversational settings, and the codes and methodologies unique to Swedish culture. See the description for Swed 4003 for an option for qualified students to register for this course for 2 credits (and lower tuition) instead of 4 credits.

**Style:** 10% Lecture, 70% Discussion, 20% Laboratory.

**Grading:** 100% other evaluation. 50% reading/writing, 50% oral/aural

**Exam Format:** written essays, listening and reading protocols, structural exercises, oral interviews

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**SWED 1003 Intermediate Swedish**

5 credit(s); prereq 1002; Credit will not be granted if credit has been received for: SWED 4003;

**Instructor:** STAFF

**Description:** This is a printed distance learning section (known as a correspondence course) offered through Online and Distance Learning, College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Swedish belongs to the northern group of the Germanic languages and as such is closely related to Icelandic, Danish, and Norwegian. There are differences in pronunciation, spelling, and vocabulary among the Germanic languages, but these are minor. If you master Swedish it is very easy to comprehend Danish and Norwegian, and vice versa. Because English belongs to the western group of the Germanic languages, there are many points of intersection in syntax and vocabulary between Swedish and English. As you study Swedish you will learn a good deal about English and become conscious of its family resemblance to Swedish. Both the oral and written Swedish used in the course materials are standard Swedish.

**Style:** This is a printed correspondence section.

**Grading:** Average for the written assignments--70 percent Your self-recordings--30 percent

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This information is accurate as of 8/16/2010 at 11:00 PM and is subject to change. Access the most current information in the online Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.
Chinese and English: With 2 credits. Contact the department office, (612) 625-2080, for permission.

TH 1101W Introduction to the Theatre 4 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Writing Intensive; Instructor: Lewis,Megan Description: TH1101 is an entertaining, informative exploration of the art and profession of theatre. This course integrates intellectual stimulation with creative expression through lectures, small group discussion, and attending live performances in the Twin Cities. Students study plays (classical and contemporary), the politics of theatre both past and present, elements of production, and learn how a play evolves from page to stage. Students also get a hands-on opportunity to collaborate on the creative project (no acting is required). For students interested in engineering and math, TH1101 encourages abstract thinking and creative application of knowledge; For students interested in the humanities, TH1101 explores the human experience and the intersections of art, history, and culture; For students interested in medicine, TH1101 emphasizes the well-being of the soul through collaborative exchange. A-F only, prereq Honors, meets Lib Ed req of Global Perspective Theme; meets Lib Ed req of Arts & Humanities Core; meets Lib Ed req of Writing Intensive; meets Honors req of Honors Style: 40% Lecture, 20% Discussion, 20% Laboratory, 10% Small Group Activities, 5% Field Trips, 5% Guest Speakers. Grading: 50% reports/papers, 15% special projects, 10% attendance, 20% reflection paper, 5% class participation.

TH 1102 Drama and the Media 3 credit(s); Meets CLE req of Arts/Humanities; Instructor: Lewis,Megan Description: This introductory level course will explore the following questions: What are THE MEDIA?? What is DRAMATIC about them? What DRAMATIC CONVENTIONS are at play in various media? How are media CONSTRUCTED? How are media MADE MEANING? We will also focus on several in-depth case studies: Disney, The Documentary Form, Africa in Film, Advertising & Culture Jamming. We will examine these fertile issues through selected readings, video and film clips viewed in class, class discussions and small group work, and online exercises. Guest speakers will expand our thinking with their insights on such topics as Sports and Drama, Virtual Spaces & Identities, Online Gaming, Surveillance Culture, Dysptopic Storytelling, and Radio Drama. We end the course with an opportunity to MAKE MEDIA through a collaborative radio drama project. Students will explore the dramatic potential of a single medium ? radio ? in creative collaboration. In small groups, you will write, direct, rehearse and perform a radio drama, complete with sound effects. The dramas will be recorded in front of a live studio audience: the class! COURSE GOALS After taking TH1102: Drama and the Media, you should be able to: ? View, encounter, and consume media with critical savvy ? Understand the ways in which media are produced, produced, and consumed, and how they make meaning in our culture? Use ?drama? and ?theatre? as a lens through which to identify and unpack some of the myths circulating through
various media in our culture

**Style:** 25% Lecture, 25% Film/Video, 25% Discussion, 10% Small Group Activities, 5% Guest Speakers, 10% Web Based.

**Grading:** 25% mid exam, 25% special projects, 5% attendance, 15% reflection paper, 5% class participation.

**TH 1301 Acting/Non-Majors**

3 credit(s);

* Instructor: STAFF

* Description: This course is designed to enable students without prior experience in theatre to better appreciate theatrical elements, develop a vocabulary for discussing theatre, and recognize the degree to which the study of basic acting techniques can inform perceptions of self and others. Students are taught how to act within imaginary circumstances, make bold choices, and develop interpersonal trust and ensemble awareness. Required text: ACTING ONE by Robert Cohen.

* Style: 10% Discussion, 90% Laboratory.

* Grading: 30% reports/papers, 30% in-class presentation, 20% other evaluation. Attendance & Participation; 20% Attitude & Growth.

**TH 1321 Beginning Acting: Fundamentals of Performance**

3 credit(s); prereq 1101 or Concurrent registration is required (or allowed) in 1101;

* Instructor: STAFF

* Description: Introduces beginning students to a widely applicable, comprehensive vocabulary and techniques for practical performance studies, including the use and training of the instrument; the creation of theatrical ideas or choices; the creation of dramatic &quot;phrases&quot; by sequencing ideas and choices to tell stories; and the significance of circumstances for choice making. The course has three overarching objectives: providing an introduction to creation processes specific to the performer, psychological and physical training of the acting instrument, and training the personal imagination. The first part of a two-course sequence (with TH 1322, Creating the Performance) intended for theatre arts majors. Required reading: A compilation of performance processes, theories and techniques including: Lecoq, Grotowski, Stanislavski, Meyerhold, Chekov, etc.

* Style: 10% Discussion, 90% Laboratory.

* Grading: 25% reports/papers, 25% in-class presentation, 25% other evaluation. Attendance & Participation; 25% Attitude & Growth.

**TH 1322 Creating the Performance**

3 credit(s); prereq 1321 or Concurrent registration is required (or allowed) in 1321 or 1501 or Concurrent registration is required (or allowed) in 1501;

* Instructor: Rosen, Robert S

* Description: Student may contact the instructor or department for information.

**TH 1323 Creating the Performance**

3 credit(s); prereq 1321 or Concurrent registration is required (or allowed) in 1321 or 1501 or Concurrent registration is required (or allowed) in 1501;

* Instructor: Taylor, Dominic A

* Description: Student may contact the instructor or department for information.

**TH 1361 Singing for Musical Theatre**

A-F only, 3 credit(s);

* Instructor: Nash, Elizabeth

* Description: The focus of this course is on singing, interpretation, and audition techniques for Musical Theatre, culminating in solo and ensemble presentations at a final class performance. Since each student is instructed individually, all vocal levels, from beginning to advanced, are welcome in this class. Due to the ensemble and performing emphasis of this course, attendance is required and will figure in grading.

* Style: vocal performance

* Grading: 10% final exam, 10% reports/papers, 80% in-class presentation

**TH 1391 BFA Acting I**

A-F only, 3 credit(s); prereq Accepted into BFA acting program;

* Instructor: Cardamone, Steve

* Description: Student may contact the instructor or department for information.

**TH 1392 BFA Voice and Speech I**

A-F only, 2 credit(s); prereq BFA-acting major;

* Instructor: Holshue, Lucinda A

* Description: Student may contact the instructor or department for information.

**TH 1393 BFA Movement I**

A-F only, 2 credit(s); prereq BFA-acting major;

* Instructor: Lorca, Marcella Kingman

* Description: Student may contact the instructor or department for information.

**TH 1501 Introduction to Design and Technology for Live Performance**

A-F only, 3 credit(s); prereq 1101 or Concurrent registration is required (or allowed) in 1101;

* Instructor: Dillard, Marcia F

* Description: Student may contact the instructor or department for information.

**TH 1905 Freshman Seminar: Actresses & Divas of Theatre, Film, Opera, Musical**

A-F only, 3 credit(s), max credits 6; prereq Fr or fewer than 30 cr;

* Instructor: Nash, Elizabeth

* Description: The focus of this seminar is to serve as an overview of the outstanding actresses and divas from Byzantium's Empress Theodora in the sixth century to Britain's Dame Judi Dench in the twenty-first. The activities of their male contemporaries are well documented, but the female performers have been sadly neglected. The names of the actress Sarah Bernhardt, the opera diva Jessey Norman, the film star Meryl Streep, the music diva Julie Andrews are generally recognized, but what about Isabella Andrei, Adrienne Lecouvreur, Sarah Siddons, Marian Anderson, Mary Pickford and Josephine Baker? All have made unique contributions to the theatre, films, opera and musicals as leading female performers of their time. They were and are the role models to serve as an inspiration to future generations. The area of opera will be devoted exclusively to this country's African-American divas. The classes will consist of lectures, videos, CDs, discussions and student oral reports on individually selected stage, film or singing actresses.

**TH 1905 Freshman Seminar: The Art of Collaboration**

A-F only, 3 credit(s), max credits 6; prereq Fr or fewer than 30 cr;

* Instructor: Sommers, Michael J

* Description: Student may contact the instructor or department for information.

**TH 1911 W Freshman Seminar: Theatre, Entertainment With Attitude**

A-F only, 3 credit(s); prereq Fr with no more than 30 cr;

Meets CLE req of Writing Intensive;

* Instructor: Bernstein, David Joseph

* Description: Is live performance obsolete? Are art and entertainment the same, as in "A & E"? In this freshman seminar for non-theater majors, we will address these questions by experiencing the power, immediacy, and social relevance of live theater. Our main goal is to use the rich cultural resources of the Twin Cities, supplemented by in-class discussions, talks with theater and dance professionals, and textual readings to develop a critical language - and a critical eye - with which to look at performance. We will attend performances at a variety of local theaters and use the experience of seeing them 'up close and personal' to focus on a number of questions. What does it mean for a theater to be mission-driven rather than market-driven? How does theater reflect social and political issues - and the
cultural context in which it was created and/or performed? How, and how well, do acting, scenery, costumes, lighting, and sound combine to a total effect to make a text or concept come alive on stage? And yes, we will also ask of each production whether or not it engaged and entertained us as audience members. Here is an excellent opportunity to experience live performance and think about its relationship to culture and values. In other words, to experience live theater as more than a way of passing the time on an otherwise boring Thursday night.

**Style:** 10% Lecture, 40% Discussion. attending theatre productions

**Grading:** 55% reports/papers, 25% special projects, 20% class participation.

**Exam Format:** No exams

**TH 2391 BFA Acting III**

A-F only, 3 credit(s); prereq BFA student in theatre arts;

**Instructor:** Cardamone, Steve

**Description:** Student may contact the instructor or department for information.

**TH 2393 BFA Movement III**

A-F only, 2 credit(s); prereq BFA student in theatre arts;

**Instructor:** Lora, Marcella Kingman

**Description:** Student may contact the instructor or department for information.

**TH 3100 Theatre Practicum**

S-N only, 1 credit(s), max credits 4, 4 completions allowed;

**Instructor:** STAFF

**Description:** Do you want to get involved in production on the Main Season for University Theatre? This is a course that can give you that opportunity. You will be assigned a specific position on a production and get a chance to work on as well as see first hand what goes into a full scale theatrical production. Come and explore the possibilities.

**Style:** 5% Lecture, 95% Laboratory.

**Grading:** 5% class participation, 95% laboratory evaluation.

**TH 3115 Introduction to Playwriting**

3 credit(s);

**Instructor:** Taylor, Dominic A

**Description:** Student may contact the instructor or department for information.

**TH 3171 History of the Theatre: Ancient Greece Through Neo-Classicism**

3 credit(s); prereq Th major or instr consent;

**Instructor:** Kobialka, Michael A

**Description:** The course focuses on a critical examination of representational practices in the period from Ancient Greece to the French Revolution. While reviewing these representational practices, which materialize as play-texts, performances, theatre architecture, theatre rebellions and regulations, theoretical writings, etc., the students will discuss how they were produced, given intelligibility, and disseminated. What are the consequences of using or promoting these and not other representational practices? In order to answer this question, the students will explore the following questions/issues: the Western origins of theatre and drama, Aristotelian Poetics, the practices of controlling and watching creative activities in Rome and in Renaissance Italy and England, the emergence of medieval liturgical drama as well as medieval modes of representation, a shift from resemblance oriented visual systems to the neoclassical ideal of the French Academy, the female actors and playwright in Restoration, the drama and theatre of the long eighteenth century and how they participated in the process of fashioning a new personality/economic type. This course investigates how performance events are brought to our attention, how they are made worthy of notice, and how they are rationalized as significant for theatre history.

**Style:** 60% Lecture, 40% Discussion.

**Grading:** 20% class participation, 80% other evaluation. three written essay exams

**Exam Format:** essay--the student is asked to answer four Questions during the exam.

**TH 3316 Voice for the Actor**

A-F only, 3 credit(s); prereq 1101, 1321, 1322;

**Instructor:** Berlovitz, Barbara Ann

**Description:** Student may contact the instructor or department for information.

**TH 3322 Advanced Techniques for Characterization**

3 credit(s); prereq 3321;

**Instructor:** Parks, Sonja

**Description:** Student may contact the instructor or department for information.

**TH 3331 Physical Approaches to Acting**

3 credit(s); prereq 1322; 3314 or Concurrent registration is required (or allowed) in 3314, 3316 or Concurrent registration is required (or allowed) in 3316; audition;

**Instructor:** Seifert, Luverne G

**Description:** Physical approaches to acting will intensely explore the psychophysical methodology of Jacques Lecoq with emphasis on neutral mask, acrobatics, commedia, clowning and buffooning. The course will investigate poetic, tragic and playful performance through the analysis of movement and gesture. Students will create solo and collaborative performances. Entrance is by audition after completion of 1321 Fundamentals of Performance and 1322 Creating the Performance. Required reading: The Moving Body by Jacques Lecoq, Invisible Cities by Italo Calvino and selected plays and readings.

**Style:** 10% Lecture, 10% Discussion, 80% Laboratory.

**Grading:** 20% reports/papers, 30% in-class presentation, 50% class participation.

**TH 3521 Introduction to Scenic Design for Theater and Performance**

3 credit(s); prereq 3571;

**Instructor:** Brockman, C Lance

**Description:** This course provides students with basic information on the creative process of scenic/design properties for the theatre and performance. Students are asked to assume the role of scene designer and through a series of exercises, approximate the creative steps in developing an environment--in both scaled model and/or sketch--for the stage or live performance. Skills developed include basic representational drawing for value, painting with color, and drafting necessary for execution of designs. As with the process of designing in the 'real world', success depends on a systematic execution of each step along the way.

**TH 3571 Introduction to Stage Technology**

A-F only, 3 credit(s); prereq 1501;

**Instructor:** Gwinup, Martin Bruce

**Description:** Student may contact the instructor or department for information.

**TH 3716 Stage Management**

A-F only, 4 credit(s); prereq 1501 or instr consent;

**Instructor:** Swartwout, Christine M

**Description:** Student may contact the instructor or department for information.

**TH 3950 Topics in Theatre: Reimagining Community**

Partnerships: Wozyck

1 credit(s), max credits 8, 8 completions allowed; prereq Varies by topic;

**Instructor:** Seifert, Luverne G

**Description:** Student may contact the instructor or department for information.

**TH 4177W Survey of Dramatic Literature I: Strategic Interpretation**

3 credit(s); prereq [3171, 3172], [jr or sr]; prr conv;

**Instructor:** Zerdy, Joanne

**Description:** Student may contact the instructor or department for information.
TH 4321 Career Preparation for the Actor
3 credit(s); prereq 3322;
Instructor: Diercks, Shirley V
Description: A comprehensive look at the world of Theatre that awaits today's young graduates. This course is intended to provide exposure to the myriad paths available to theatre majors upon completion of their formal education. The class will be comprised of discussions with varying personalities who have achieved a modicum of "success" measured by their own ambitions as well as the standards set by our profession. Students will also venture into the community at large and interview a specialist of their choosing and submit a written report as well as make a formal class presentation. We will also be devoting significant time in and outside of class to research the necessary tools of the trade - photos, resumes, contact sheets, and of utmost importance, the student's audition materials.
Style: 10% Lecture, 20% Discussion, 30% Laboratory, 30% Student Presentation, 10% Guest Speakers.
Grading: 30% attendance, 10% journal, 30% in-class presentation, 30% laboratory evaluation. This class is a laboratory/skill improvement class, and participation is key. Growth in performing for a professional career in Theatre and all related fields of opportunity.

TH 4380 Creative Collaboration
1-3 credit(s), max credits 12, 4 completions allowed; prereq Audition, interview, instr consent;
Instructor: STAFF
Description: Ensemble creation of a single theatre performance work. Creative/dramaturgical work. Public showing of work, completed or in-progress. Students work collaboratively with faculty or affiliate guest artists.

TH 4391 BFA Intensive II
A-F only, 2 credit(s); prereq BFA student in theatre arts;
Instructor: Lorca, Marcella Kingman
Description: Student may contact the instructor or department for information.

TH 4394 BFA Rehearsal and Performance IV
A-F only, 2 credit(s); prereq BFA student in theatre arts;
Instructor: Lorca, Marcella Kingman
Description: Student may contact the instructor or department for information.

TH 4550 Video Technology
3 credit(s);
Instructor: Gwinup, Martin Bruce
Description: By the end of this course students should understand and be comfortable with common approaches to lighting, camera operation, audio and production practices for video production. This course is based both in studio as well as in the field. Specifics of video protocols and formats will be discussed. The creative discussions in the class will include aesthetics, continuity and composition. Students understanding of the topics and techniques discussed in this course will culminate in their final project. This course is open to any student on campus who has an interest in video or film production.

TH 4555 Audio Technology
3 credit(s);
Instructor: Johnson, Montana J
Description: Student may contact the instructor or department for information.

TH 4711 Intermediate Stage Direction
3 credit(s); prereq 1322 or instr consent;
Instructor: Channer, Lisa E
Description: Student may contact the instructor or department for information.

TH 4901 Senior Seminar
S-N only, 2 credit(s); prereq Sr, [Th or Dnce major]; Credit will not be granted if credit has been received for: DNCE 4901;
Instructor: Seilert, Luverne G
Description: Student may contact the instructor or department for information.

TH 4905H Honors: Tutorial Seminar in Theatre Arts
A-F only, 2-4 credit(s), max credits 4, 1 completion allowed; prereq 4905; honors, theatre arts, dept consent; limit [2 cr for [cum laude or magna cum laude], 4 cr for summa cum laude];
Instructor: STAFF
Description: Student may contact the instructor or department for information.

TH 5100 Theatre Practicum
1-4 credit(s), max credits 20, 10 completions allowed; prereq instr consent, dept consent; 4 cr of 3100 for undergrads;
Instructor: STAFF
Description: Individual creative projects in production of approved plays as an actor, director, dramaturg or playwright.

TH 5340 Tragedy/Poetry: Advanced Physical Performance Studio
A-F only, 3 credit(s), max credits 6; prereq [3322, 3331, grad student] or instr consent;
Instructor: Berlovitz, Barbra Ann
Description: The Winter's Tale Over the course of the semester the student will discover an open and physical approach to speaking Shakespeare. Through a series of physical and vocal exercises the student will learn to speak the text on the breath of the character. The student will prepare for rehearsal by discovering what it feels like to be free from judgment and open for discovery. And we will work to unlock the passion found in Shakespeare's text. Much of the work will be individual although many of the exercises will be done as an ensemble. We will strive to increase the student's imagination, improve the involvement of their breath in the work and learn to be present on the stage and in rehearsal. A minimal amount of time will be spent reviewing the fundamentals of speaking a heightened language and developing this part of the craft. The focus of the semester will be on A Winter's Tale. Patsy Rodenburg's Speaking Shakespeare is required reading for the class.

TH 5355 Puppetry: Techniques and Practice in Contemporary Theater
3 credit(s); prereq ([3513 or &3513], instr consent) or grad student;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

TH 5500 Theatre Design Practicum
1-3 credit(s), max credits 20, 10 completions allowed; prereq 3515, instr consent, dept consent;
Instructor: STAFF
Description: Individual projects in production of approved plays as an actor, director, dramaturg or playwright.

TH 5530 Costume Design
3 credit(s), max credits 9, 3 completions allowed; prereq 3515 or grad or instr consent;
Instructor: Lefebvre, Mathew James
Description: Student may contact the instructor or department for information.

TH 5540 Lighting Design for the Theatre
3 credit(s), max credits 9, 3 completions allowed; prereq 3515 or grad or instr consent;
Instructor: Dilliard, Marcus F
Description: Student may contact the instructor or department for information.
TH 5580 Costume Technology
3 credit(s), max credits 15, 5 completions allowed; prereq 3515 or grad or instr consent;
Instructor: Binder-Pettigrew,Susan M
Description: Spring Semester's emphasis is Draping. The student will gain working knowledge of pattern making using a technique where in a pattern is achieved by draping and manipulating fabric directly on a dressmaker's form.

TH 5590 Theatre Technology Practicum
1-3 credit(s), max credits 15, 15 completions allowed; prereq 3515, instr consent, dept consent; 4 cr max for undergrads;
Instructor: STAFF
Description: Individual creative projects in the technology or craft areas of theatre that further practical skills or knowledge in the fields of costume, lighting, makeup, props, scenery, sound, or theatre management.

TH 5716 Stage Management for the Theatre
4 credit(s); prereq [1101, 1321, soph] or grad;
Instructor: Swartwout,Christine M
Description: Student may contact the instructor or department for information.

TH 5718 Principles of Arts Management
3 credit(s); prereq instr consent;
Instructor: Proehl,Thomas Craig
Description: Student may contact the instructor or department for information.

TH 5760 Advanced Stage Management
2-3 credit(s), max credits 3, 1 completion allowed; prereq 5716 or concurrent enrollment 5716, instr consent; [4 cr max for undergrads];
Instructor: Swartwout,Christine M
Description: Student may contact the instructor or department for information.

TH 5950 Topics in Theatre
1-4 credit(s), max credits 20, 20 completions allowed;
Instructor: STAFF
Description: Casa Cushman is a new play about the life and work of 19th century American actress Charlotte Cushman. One of the most important actresses of her time, Cushman was famous for her interpretation of the leading MALE roles in Shakespeare. Cushman continually challenged Victorian notions of gender in her stage portrayals of male characters and of strong, androgynous female characters. When Charlotte Cushman made her last appearance in New York in 1874, a reported 14,000 fans filled the streets at 23rd Street from 5th to 6th Avenues just to catch a glimpse of the actress from her balcony. Cushman not only challenged Victorian notions of gender onstage, she played the man in every area of her life. She gathered around her an incredible circle of emancipated 19th century women: painters, poets, sculptors and literary women, many of whom she financially supported. And she had intense love affairs with several of them. There is at the Library of Congress a collection of over 1,000 unpublished letters, written by Cushman to Emma Crow, the transcription of which has been a 10-year labor of love by scholar Lisa Merrill. Many of Cushman's letters to Crow include the directive: ?burn this letter,? but they were not burned. Preserved, they chronicle a passionate Victorian-era lesbian love story before such love was thought to exist.
Grading: Performance projects
Exam Format: Performance projects

TH 5993 Directed Study
1-5 credit(s), max credits 20, 20 completions allowed; prereq 6 Th cr. instr consent, dept consent, college consent;
Instructor: STAFF
Description: Guided individual reading or study.

TH 8115 History and Theory of Western Theatre: 20th Century Through World War II
3 credit(s);
Instructor: Kobialka,Michal A
Description: Student may contact the instructor or department for information.

TH 8950 Topics in Theatre
1 credit(s), max credits 8;
Instructor: Lefebvre,Mathew James
Description: Student may contact the instructor or department for information.

Therapeutic Radiology
M-26 Masonic Cancer Ctr (Box 494)

TRAD 8204 Tumor Clinic Conference
0 credit(s);
Instructor: Dusenbery MD,Kathryn E
Description: Student may contact the instructor or department for information.

TRAD 8240 Radiation Therapy Conference
0 credit(s);
Instructor: Lee,Chung Kyu
Description: Student may contact the instructor or department for information.

TRAD 8310 Fundamentals of Radiation Therapy
1 credit(s);
Instructor: Lee,Chung Kyu
Description: Student may contact the instructor or department for information.

TRAD 8320 Radiation Therapy Treatment Planning Problems
1 credit(s);
Instructor: Orner MD,James B
Description: Student may contact the instructor or department for information.

TRAD 8325 Radiation Therapy Pediatrics Oncology
1 credit(s);
Instructor: Dusenbery MD,Kathryn E
Description: Student may contact the instructor or department for information.

TRAD 8350 Research: Radiation Therapy
1-15 credit(s), max credits 15, 1 completion allowed;
Instructor: Dusenbery MD,Kathryn E
Description: Student may contact the instructor or department for information.

TRAD 8450 Research: Radiation Biology
1-15 credit(s), max credits 15, 1 completion allowed;
Instructor: Ritenour,Russell
Description: Student may contact the instructor or department for information.

TRAD 8850 Research: Radiological Physics
1-15 credit(s), max credits 15, 1 completion allowed;
Instructor: Gerbi PhD,Bruce John
Description: Student may contact the instructor or department for information.

Toxicology
244 Veterinary Diagnostic Lab

TXCL 5195 Veterinary Toxicology
A-F only, 3 credit(s); prereq Grad student or instr consent;
Credit will not be granted if credit has been received for:
CVM 6195;
Instructor: Murphy,Michael J
Translation and Interpreting
101 Wesbrook Hall

TRIN 1201 Health Care Terms and Concepts for Interpreters
A-F only, 3 credit(s);
Instructor: Meininger, Eric Thomas
Description: This course is an introduction to the special varieties of English used by health care providers when they talk with patients and family members in clinical settings. Students will learn specialized vocabulary including the complex terminology of anatomy and physiology, as well as names of diseases, common medications, treatments, and medical equipment and procedures. Students will also learn how health care provider/patient interactions are organized, how technical medical terms are used in professional communications with patients, and how understandings are negotiated between providers and patients. Terminology will be studied using programmed self-instruction. Specialists (e.g., a pediatrician, an oncologist, a dentist, a pharmacist, or a midwife) will be invited in to discuss their own patterns of professional communication and the special issues they encounter in communicating with patients from other cultures.
Style: 25% Lecture, 25% Small Group Activities, 50% Guest Speakers. This is an evening class. Participants are expected to be in class by the 6:10 PM starting time.
Grading: 45% mid exam, 30% final exam, 15% written homework, 10% class participation. The class participation percentages also reflect class attendance.
Exam Format: Students must pass three in-class tests on technical terms and concepts (fill in the blank, true/false, multiple choice). The final, cumulative exam will also include an essay.

TRIN 3001 Introduction to Translation
3 credit(s); prerequisite Bilingual proficiency in [English, second language of instruction];
Instructor: STAFF
Description: An introductory course in translation oriented toward the translation of documents written in English into the languages of non-English-speaking residents of our communities. The course includes both theory and supervised practice. As an exercise in re-expressing meaning in a second language, the course provides a solid basis for training in interpreting, as well as for translation.

TRIN 3101 Introduction to Interpreting
3 credit(s); prerequisite high level of proficiency in spoken English and another language; 3001 recommended;
Instructor: STAFF
Description: A practical and theoretical introduction to interpreting in health, human service, and legal settings. Emphasis is on understanding the unique role of the interpreter, current models and modes of interpreting, ethical issues and professional standards of practice, and developing skills in understanding and analyzing spoken language.

University College
20 Classroom Office Building

UC 1485 Creativity: Photography
4 credit(s); prerequisite Own camera [35 mm w/adjustable controls preferred], UC; $50 lab fee; Credit will not be granted if credit has been received for: PSTL 1485;
Instructor: Millikan, Jeffrey B
Description: This introductory course explores conceptual, technical, and historical aspects of photography as an art form. Emphasis is on the creative process through hands-on experience as students learn about camera control, film development, enlarging, and printing in a photographic darkroom. Students receive instruction and support through individual and group discussion and critiques as they work to create a portfolio of their own images. Course includes required lab time in addition to scheduled class times. Students must have a film-based camera, (35mm with adjustable controls preferred).
Style: 30% Lecture, 20% Discussion, 50% Laboratory.

UC 3201 Web Designer Introduction
4 credit(s);
Instructor: Husom, David Harold
Description: See and learn the Web design process by mastering the four phase process of site development: plan, design, produce and publish. Learn design principles, business practices and site analysis. Use industry standard Web design software including Adobe Photoshop, Dreamweaver and Flash to build your own Website. Also get a firm foundation in HTML and CSS. The class includes lectures, exercises, and lab time in a small, hands-on class. No prerequisites or previous experience required. Course notes will be available at the Coffman Bookstore.
Style: 10% Lecture, 10% Discussion, 50% Laboratory, 5% Student Presentation, 25% Demonstration.
Grading: 75% special projects, 10% quizzes, 5% in-class presentation, 10% class participation. Students create a Web site for a final project.

Urban Studies
348 Social Sciences Building

URBS 1001W Introduction to Urban Studies: The Complexity of Metropolitan Life
A-F only, 3 credit(s); Meets CLE req of Writing Intensive;
Instructor: Martin, Judith A
Description: This course is an overall introduction to the field of Urban Studies. It draws from a number of different disciplines which contribute to the study of cities, and tries to promote an understanding of the complexity of urban environments. The course ranges from historical considerations of cities to contemporary problem areas, and promotes active learning on the part of students.

URBS 3001W Introduction to Urban Studies: The Complexity of Metropolitan Life
A-F only, 3 credit(s); prerequisite =1001; Meets CLE req of Writing Intensive;
Instructor: Martin, Judith A
Description: This course is cross listed with UrbS 1001. Students may register for either level. Drawing from multiple disciplines, this course examines the complexities of urban and metropolitan environments. A breadth of topics is covered amid changing social, political and economic contexts including governance, technology, planning and design concepts, investment and uneven development, citizen activism and cultural representations in art and film. International comparisons provide additional insight about U. S. cities. The course requires fieldwork and is writing intensive (3 cr.). Taught in fall and spring,

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URBS 3201 Urban Studies Colloquium
A-F only, 1 credit(s), max credits 4, 4 completions allowed; prereq dept consent;
Instructor: STAFF
Description: Sec 003 Corridor and redevelopment studies play an important role in planning, land use and development within large and small communities. This course will explore the inter-relationship that public realm, housing and redevelopment, transportation, economics and social issues play in creating a sense of place among corridors. During this course we will examine each of these elements and how they function within the greater context of a corridor. Mike Darrow is a planner with SEH.

URBS 3301W American Cities As Settings for Cultural Diversity
3 credit(s); Meets CLE req of Writing Intensive;
Instructor: Brinda, Mark Richard
Description: Student may contact the instructor or department for information.

URBS 3500 Urban Studies Workshop
A-F only, 3 credit(s), max credits 9, 3 completions allowed; prereq instr consent;
Instructor: STAFF
Description: URBS 3500 Urban Studies Workshops sec -001 Revitalization: Planning and Implementation, 06:30 P.M. - 09:30 P.M. M (01/22/2008 - 05/09/2008) 3 credits This workshop examines what it takes to revitalize neighborhoods or commercial areas in disadvantaged communities. This is a daunting challenge because of the multiple and inter-related dynamic factors that perpetuate the disadvantaged condition. As a class, we will work to understand the nature of that challenge, and we will explore and discuss a toolkit of analytical methods, development and business strategies, and organizational approaches that can be instrumental in overcoming barriers and fostering positive change. Students will develop a case study that examines a successful revitalization process, and identifies the planning and implementation elements that were most pivotal in that process. Tom Leighton, AICP is a principal planner with the city of Minneapolis. sec -002 Urban Real Estate Development: Fundamentals, Process and Outcome 06:00 P.M. - 09:00 P.M. W (01/22/2008 - 05/09/2008), Blegh 240, TCWESTBANK, 3 credits This course will (1) explore and explain disparate disciplines that interact with and depend on each other in urban real estate development while (2) explaining development itself as a holistic, ecological process and profession. The class will first explore the fundamental disciplines involved in the urban real estate development process, including budgeting and finance, property management and asset management. Then the course will examine how these fundamentals are integrated in real estate developments in a chosen Twin Cities neighborhood. The class will have a chance to explore how such projects are developed in the Twin Cities region. Students should have a paper proposal ready before taking the course (paragraph describing the paper). Judith Martin.

URBS 3900 Urban Studies Internship Seminar
A-F only, 2 credit(s), prereq Sr, internship placement, dept consent, instr consent;
Instructor: Pentel, Paula R
Description: Student may contact the instructor or department for information.

URBS 3955W Senior Paper Seminar
A-F only, 2 credit(s); prereq dept consent; Meets CLE req of Writing Intensive;
Instructor: Martin, Judith A
Description: This seminar is intended for urban studies seniors who are undertaking their senior papers. Methods and resources for research will be the focus and significant writing will be expected. Students will share experiences, work on drafts, and should expect to have a first draft completed well before the term. Students should have a paper proposal ready before taking the class (paragraph describing the paper). Student may contact the instructor or department for information.

URBS 3993 Urban Studies Directed Study
A-F only, 2-3 credit(s), max credits 6, 3 completions allowed; prereq UrbS majors, instr consent, dept consent;
Instructor: STAFF
Description: For students with a specific educational objective that cannot be satisfied through regular curriculum (e.g., foreign study) and for honors students to complete an honors opportunity.

Veterinary & Biomedical Sciences

VBS 2032 General Microbiology with Laboratory
4 credit(s); prereq [CHEM 1011, one semester college biology] or instr consent, primarily for non-microbiology majors; Credit will not be granted if credit has been received for: MICB 3301;
Instructor: Isaacson, Richard
Description: Student may contact the instructor or department for information.

Veterinary Clinical Sciences

C-339 Veterinary Teaching Hospital

VCS 4600 Small Animal and Equine Behavior
A-F only, 3 credit(s);
Instructor: Fonseth, Sherry
Description: Topics covered will include the basics of normal animal behavior in dogs, cats, horses and wolves. Principles of learning theory and the applications in animal training will be covered in depth. Other topics will include the development of animal behaviors (ethology), social and communication development, sexual behaviors, and genetics. Animal welfare, shelter animal behavior, legislation and abuse, and the human animal bond will be covered by various experts in their fields. For students with a specific educational objective that cannot be satisfied through regular curriculum (e.g., foreign study) and for honors students to complete an honors opportunity.

Grading: 80% Lecture, 10% Discussion, 10% Guest Speakers.

Style: 60% Lecture, 15% Film/Video, 10% Small Group Activities, 10% Field Trips, 5% Guest Speakers.
Grading: 35% final exam, 55% reports/papers, 10% class participation.
Exam Format: Essay

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weighted. For students hovering between two grades by less than or equal to 1%-age point, perfect attendance will boost the grade. Class participation is expected.

Exam Format: Multiple choice tests.

**VMED 4992 Directed Readings in Veterinary Clinical Sciences**
A-F only, 1-6 credit(s), max credits 12; prereq One-page proposal submitted to faculty;
Instructor: Modiano, Jaime
Description: Student may contact the instructor or department for information.

**VMED 4993 Directed Study in Veterinary Clinical Sciences**
A-F only, 1-6 credit(s), max credits 12; prereq One-page proposal submitted to faculty member;
Instructor: Modiano, Jaime
Description: Student may contact the instructor or department for information.

**VMED 4994 Directed Research in Veterinary Clinical Sciences**
A-F only, 1-6 credit(s), max credits 12; prereq One-page proposal submitted to faculty member;
Instructor: Modiano, Jaime
Description: Student may contact the instructor or department for information.

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**Veterinary Medicine, Graduate**

**455 Veterinary Teaching Hospital**

**VMED 5080 Problems in Veterinary Epidemiology and Public Health**
A-F only, 1-3 credit(s), max credits 3, 1 completion allowed;
Instructor: Bender, Jeff Blaine
Description: Student may contact the instructor or department for information.

**VMED 5093 Directed Studies in Population Medicine**
A-F only, 1-4 credit(s), max credits 8; prereq Grad student, instr consent;
Instructor: Goyal, Sagar M
Description: Student may contact the instructor or department for information.

**VMED 5190 Seminar and Presentation Development**
S-N only, 2 credit(s); prereq Grad student;
Instructor: Godden, Sandra Michele
Description: Student may contact the instructor or department for information.

**VMED 5210 Advanced Large Animal Physiology I**
1-3 credit(s), max credits 6;
Instructor: Malone, Erin
Description: This is the first part of a two semester course. The sections are independent. Together the courses are designed to provide a strong foundation in the normal physiology of large animal species that will allow participants to better evaluate and understand the pathophysiology of diseases and conditions affecting large animal species. The course will be offered once every three years. Course objectives: 1. To cover topics in large animal physiology, including sports physiology 2. To correlate material with pathophysiology as observed in texts and journal articles. Texts: Auer’s Equine Surgery (3rd ed), Cunningham’s Veterinary Physiology (3rd ed), Fubini’s Farm Animal Surgery, Wolfe/Moll Urogenital Surgery, and Muir & Hubbell’s Handbook of Veterinary Anesthesia (3rd ed) The fall 2010 course will emphasize urogenital physiology and surgery.
Style: 90% Lecture, 10% Laboratory.
Grading: 50% in-class presentation, 50% class participation.

**VMED 5232 Comparative Clinical Veterinary Dermatologic Pathology**

**VMED 5240 Advanced Small Animal Pathobiology I**
A-F only, 1 credit(s); prereq CVM grad student, [DVM or foreign equiv] degree;
Instructor: Patterson DVM, Ned
Description: Student may contact the instructor or department for information.

**VMED 5259 Problems in Large Animal Clinical Medicine/Surgery and Theriogenology**
A-F only, 1 credit(s), max credits 3, 3 completions allowed;
prereq VMED grad student, possess DVM;
Instructor: Valberg, Stephanie J
Description: Student may contact the instructor or department for information.

**VMED 5310 Topics in Veterinary Clinical Pathology**
S-N only, 1 credit(s), max credits 2; prereq Grad student in CVM;
Instructor: Sharkey, Leslie Carol
Description: Student may contact the instructor or department for information.

**VMED 5319 Veterinary Gross Pathology**
S-N only, 1 credit(s), max credits 3, 3 completions allowed;
prereq Grad student in CMB or [VMED, DVM degree or foreign equivalent], college consent;
Instructor: Wueneschmann, Arno
Description: Student may contact the instructor or department for information.

**VMED 5320 Advanced Veterinary Systemic Pathology I**
A-F only, 3 credit(s); prereq Grad student in VMED or [CMB, [DVM degree or foreign equiv]] or instr consent;
Instructor: Carlson, Cathy Sue
Description: Student may contact the instructor or department for information.

**VMED 5330 Veterinary Descriptive Histopathology**
1 credit(s), max credits 2; prereq Grad student in VMED or [CMB, [DVM degree or foreign equiv]] or instr consent;
Instructor: Armien, Anibal Guillermo
Description: Student may contact the instructor or department for information.

**VMED 5395 Problems in Veterinary and Comparative Pathology**
A-F only, 3 credit(s); prereq Grad student in CVM, [DVM degree or foreign equiv];
Instructor: O’Brien, Timothy David
Description: Student may contact the instructor or department for information.

**VMED 5410 Scientific Writing and Speaking**
A-F only, 2 credit(s); prereq Grad student in health sciences;
Instructor: Goyal, Sagar M
Description: Student may contact the instructor or department for information.

**VMED 5430 HIV/AIDS: Pathogenesis, Treatment, and Prevention**
OPT No Aud. 1 credit(s); prereq Grad student;
Instructor: Molitor, Thomas William
Description: Student may contact the instructor or department for information.

**VMED 5493 Directed Studies in Infectious Disease**
A-F only, 1-4 credit(s), max credits 8; prereq Grad student, instr consent;
Instructor: Dee, Scott Allen
Description: Student may contact the instructor or department for information.

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VMED 5496 Training in Swine Production and Management
S-N only, 4 credit(s); prereq VMED grad student or instr consent;
Instructor: Dee, Scott Allen
Description: Student may contact the instructor or department for information.

VMED 5596 Swine Diseases and Diagnostics
2-3 credit(s);
Instructor: Joo, Han Soo
Description: Student may contact the instructor or department for information.

VMED 5670 Bovine Surgery Practicum
S-N only, 2 credit(s); prereq [VMed grad student, [DVM or equiv foreign degree]] or instr consent;
Instructor: Malone, Erin
Description: This two week intensive course is designed to provide training in ruminant surgery to VMC graduate students and DVMs. The course is unusual in format from most veterinary curriculum offerings and provides an indepth evaluation of food animal surgery principles as well as hands on laboratory components to solidify understanding of the material. Course goal(s): Provide training in ruminant surgery Objectives: Course objectives : 1. To review basic and advanced ruminant surgery principles, including diagnostics and corresponding medical management, in lecture format 2. To practice principles of ruminant surgery in a variety of laboratory formats
Style: 40% Lecture, 50% Laboratory, 10% Student Presentation.
8-5 M-F for two week blocks (one in fall, one in early spring).
Grading: 20% reports/papers, 20% special projects, 20% in-class presentation, 20% class participation, 20% laboratory evaluation.

VMED 5693 Directed Studies in Surgery/Radiology/Anesthesiology
A-F only, 1-4 credit(s), max credits 8; prereq Grad student, instr consent;
Instructor: Pluhar, Liz
Description: Student may contact the instructor or department for information.

VMED 8090 Epidemiology of Zoonoses and Diseases Common to Animals and Humans
A-F only, 3 credit(s); prereq Epidemiology and infectious disease course or instr consent;
Instructor: Scheftel DVM, Joni M
Description: Student may contact the instructor or department for information.

VMED 8134 Ethical Conduct of Animal Research
A-F only, 3 credit(s); prereq [Grad or professional school] student or instr consent; Credit will not be granted if credit has been received for: ANSC 8134;
Instructor: Molitor, Thomas William
Description: Student may contact the instructor or department for information.

VMED 8201 Advanced Small Animal Veterinary Medicine
A-F only, 1-5 credit(s), max credits 5, 1 completion allowed; prereq instr consent;
Instructor: Polzin, David J
Description: Student may contact the instructor or department for information.

VMED 8202 Internal Medicine in Small Companion Animals
A-F only, 1-3 credit(s), max credits 3, 1 completion allowed; prereq instr consent;
Instructor: Polzin, David J
Description: Student may contact the instructor or department for information.

VMED 8203 Advanced Diagnosis and Therapeutics of Animal Disease
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed; prereq instr consent;
Instructor: Polzin, David J
Description: Student may contact the instructor or department for information.

VMED 8210 Seminar: Veterinary Medicine
1 credit(s); prereq instr consent;
Instructor: Polzin, David J
Description: Student may contact the instructor or department for information.

VMED 8220 Advanced Nephrology/Urology Clinics
1-3 credit(s), max credits 3, 1 completion allowed; prereq instr consent;
Instructor: Polzin, David J
Description: Student may contact the instructor or department for information.

VMED 8230 Medical Conference
1-3 credit(s), max credits 3, 1 completion allowed; prereq instr consent;
Instructor: Lulich PhD, Jody P
Description: Student may contact the instructor or department for information.

VMED 8292 Journal Club: Large Animal Internal Medicine
A-F only, 1 credit(s), max credits 3, 3 completions allowed; prereq instr consent;
Instructor: Valberg, Stephanie J
Description: Student may contact the instructor or department for information.

VMED 8293 Advanced Studies in Nephrology and Urology
A-F only, 1-3 credit(s), max credits 3, 1 completion allowed; prereq instr consent;
Instructor: Lulich PhD, Jody P
Description: Student may contact the instructor or department for information.

VMED 8394 Research in Veterinary Medicine
1-3 credit(s), max credits 3, 1 completion allowed; prereq instr consent;
Instructor: Sreevatsan, Srinand
Description: Student may contact the instructor or department for information.

VMED 8396 Diagnostic and Therapeutic Techniques of Animal Diseases
1-3 credit(s), max credits 6, 6 completions allowed; prereq DVM student, vet med student, instr consent;
Instructor: Valberg, Stephanie J
Description: Student may contact the instructor or department for information.

VMED 8492 Seminar: Infectious Diseases and Swine Medicine
1 credit(s), max credits 2;
Instructor: Molitor, Thomas William
Description: Student may contact the instructor or department for information.

VMED 8495 Problems in Infectious Diseases
1-3 credit(s), max credits 3, 1 completion allowed;
Instructor: Joo, Han Soo
Description: Student may contact the instructor or department for information.

VMED 8530 Advanced Swine Diseases
2 credit(s);
Instructor: Joo, Han Soo
Description: Student may contact the instructor or department for information.

VMED 8592 Infectious Disease Journals: Critical Thinking
1 credit(s);
Instructor: Dee, Scott Allen
Description: Student may contact the instructor or department for information.

VMED 8780 Advanced Avian Critical Care: Principles and Procedures
A-F only, 2 credit(s); prereq Course each in vet pathology, physiology, pharmacology, anatomy, small animal anesthesiology and critical care;
Instructor: Redig, Patrick Thomas
Description: Student may contact the instructor or department for information.

VMED 8791 Research in Veterinary Anesthesia
A-F only, 1-3 credit(s), max credits 3, 1 completion allowed; prereq 8781 or equiv. SACS 5380 or equiv;
Instructor: Graham DVM, Lynelle
Description: Student may contact the instructor or department for information.

VMED 8793 Seminar: Veterinary Anesthesiology
A-F only, 1-2 credit(s), max credits 2, 1 completion allowed; prereq [CVM 6321 or equiv]. DVM degree;
Instructor: Graham DVM, Lynelle
Description: Student may contact the instructor or department for information.

Water Resources Science
173 McNeal Hall

WRS 5241 Ecological Risk Assessment
3 credit(s); prereq instr consent;
Instructor: Andow, David
Description: Student may contact the instructor or department for information.

WRS 8100 Interdisciplinary Seminar in Water Resources
0.5-3 credit(s), max credits 3, 3 completions allowed;
Instructor: Nieber, John Little
Description: Student may contact the instructor or department for information.

WRS 8100 Interdisciplinary Seminar in Water Resources
0.5-3 credit(s), max credits 3, 3 completions allowed;
Instructor: Werne, Josef P
Description: Student may contact the instructor or department for information.

Work and Human Resource Education
330 Wulling Hall

WHRE 3821 Diversity in the Workplace
A-F only, 3 credit(s);
Instructor: Simmons, Verna Cornelia
Description: Student may contact the instructor or department for information.

WHRE 5001 Survey: Human Resource Development and Adult Education
3 credit(s); prereq Grad student only;
Instructor: Peterson, Shari L
Description: Course Description WHRE 5001 is an overview of the ways in which Human Resource Development (HRD) and Adult Education (AdEd) overlap as well as the unique dimensions of both fields. The foci are (a) application of theory to practice, (b) integration of the two fields, and (c) critical thinking. Course Objectives Through individual and group activity and discussion, students have an opportunity to: 1. Understand the systems theory that frames the context for studying various fields; 2. Identify AdEd theories and ways they inform educational and HRD practice; 3. Identify HRD theories and ways they inform human resource development and AdEd practice; 4. Engage in dialog focused on readings and issues in HRD and AdEd; 5. Enhance critical thinking and writing skills.

WHRE 5401 Distance Learning in Adult Education and Training
A-F only, 3 credit(s);
Instructor: Woldeab, Daniel
Description: This online course will utilize several online instructional tools, with the home course site set as a Moodle site. Students must have access to a fairly up-to-date Windows or Macintosh computer on a high-speed Internet connection. Students should have some working knowledge of their computer and how to use a World Wide Web browser. This course is semi-asynchronous, meaning that there will be no scheduled class times, but there will be deadlines and windows of time for completing assignments. Students should plan several occasions during the week to log onto the course site and work on the course.

WHRE 5601 Student and Trainee Assessment
A-F only, 2 credit(s); prereq credit will not be granted if credit received for: BIE 5601; Credit will not be granted if credit has been received for: HRD 5601;
Instructor: Stertz EdD, Tom
Description: Student may contact the instructor or department for information.

WHRE 5629 Course Development for Business and Industry
A-F only, 2 credit(s); Credit will not be granted if credit has been received for: HRD 5629;
Instructor: Stertz EdD, Tom
Description: Student may contact the instructor or department for information.

WHRE 5697 Teaching Internship: School and Classroom Settings
2 credit(s); prereq 5696 for initial licensure program;
Instructor: Cudworth, Rachel Beth
Description: Student may contact the instructor or department for information.

WHRE 5821 Diversity Issues and Practices in Work and Human Resource Education Settings
3 credit(s);
Instructor: Digby PhD, Cynthia LB
Description: Student may contact the instructor or department for information.

WHRE 5901 Using Research in Work and Human Resource Education
3 credit(s); prereq Grad student only;
Instructor: Twohig, Catherine Carol
Description: Student may contact the instructor or department for information.

WHRE 6001 Advanced Theory in Human Resource Development and Adult Education
A-F only, 3 credit(s); prereq 5001 or AdEd 5001;
Instructor: Ardichvili, Alexandre A
Description: Critical assessment and development of human resource development (HRD) and adult education (AE) theories and discussion of the role of theory in addressing practical demands placed upon individuals and organizations. COURSE OBJECTIVES: By the end of this course students will be able to: 1. Develop an understanding of the philosophical foundations of theory and theory development; 2. Familiarize themselves with the current approaches to social science research and theory-building; 3. Examine different perspectives of research and theory-building; 4. Develop critical thinking skills necessary to understand, interpret, and evaluate research and theory in human resource development and adult education; 5. Identify, compare and critique some current theories and theory-building...
methodologies; 6. Construct a HRD or AE theory (or conceptual framework) in a particular area of professional interest; 7. Critically review the literature of theory and research in a particular area of study; 8. Become part of a community of scholars and contribute to the viability and productivity of this community; 9. Recognize personal barriers to effective academic writing, and develop a strategy for overcoming these barriers.

**METHODS OF INSTRUCTION**

The course will primarily utilize seminars, scholarly dialogue, and written assignments. The instructor’s main role is to facilitate learning, lead discussions, and share knowledge and resources.

**WRHE 8141 Foundations of Work and Human Resource Education**

3 credit(s);
Instructor: Bartlett,Kenneth Russell
Description: Student may contact the instructor or department for information.

**WRHE 8915 Ethics and Responsible Research**

A-F only, 1 credit(s);
Instructor: Brown PhD,James M
Description: Student may contact the instructor or department for information.

**WRHE 8990 Research Seminar**

S-N only, 1 credit(s), max credits 6, 6 completions allowed;
prereq 8911, [8912 or 8913 or 8914] or dept consent;
Instructor: Brown PhD,James M
Description: Student may contact the instructor or department for information.


A-F only, 3 credit(s); prerequisite: Student may contact the instructor or department for information.
Description: This seminar will introduce students to the intellectual projects of studying and participating in higher college career such as summaries, essays, academic arguments, bibliographies, and papers built on research. The course helps students develop, at a minimum, an approach to writing that relies on a clear statement of a thesis and support of that thesis with appropriate sources and documentation. Time is spent discussing rhetorical elements of writing such as audience, purpose, and argumentative structure. Students also practice steps in the writing process such as invention, research, organization of ideas, paper drafting, revision, and editing. Students report, synthesize, and draw conclusions regarding the significance of what they read. Students become more aware of the rhetorical choices available to them and learn to make appropriate choices. Some sections may be taught in computer classroom. Some sections are offered online. Some sections may include a service-learning component.

Style: 10% Lecture, 35% Discussion. Instructor-directed work on writing assignments, including one-to-one conferences.
Grading: 80% reports/papers, 20% class participation.
Percentages may vary slightly by section. Class participation includes required in-class writing.

**WRIT 1401 Writing and Academic Inquiry**

A-F only, 4 credit(s); prerequisite: Placement in WRIT 1401 credit will not be granted if credit already received for freshmen composition courses under the following former designators: ENGC 1011, ENGC 1011H, ENGC 1012, ENGC 1012H, ENGC 1013, ENGC 1013H, ENGC 1014, ENGC 1014H, ENGC 1015, ENGC 1016, RHET 1101; Credit will not be granted if credit has been received for: WRIT 1401;
Instructor: STAFF
Description: WRIT 1401 fulfills the first-year writing requirement. It challenges students to think strategically about developing and communicating ideas within different contexts. Students examine increasingly challenging texts as they apply their writing processes, with feedback from the instructor and peers, in order to craft thesis-driven academic analyses and arguments. Students master the concepts of audience, purpose, and context to demonstrate effective communication both for and beyond an academic audience. Classroom activities include discussion of readings, peer review, informal writing assignments. Students study the revision process to achieve their writing goals. Students use University libraries to locate, evaluate, and apply scholarly sources. Some sections may focus on writing with and for new media. Some sections may include a service-learning component.
Style: 10% Lecture, 35% Discussion. Instructor-directed work on writing assignments, including one-to-one conferences.
Grading: 80% reports/papers, 20% class participation.
Percentages may vary slightly by section. Class participation includes required in-class writing.

**WRIT 1511 Writing Studio I**

A-F only, 1 credit(s); prerequisite: Only Rochester-admitted students will be able to enroll in this course.
Instructor: Taniguchi,Yuko
Description: Student may contact the instructor or department for information.

**WRIT 1301 University Writing**

A-F only, 4 credit(s); prerequisite: Placement in WRIT 1301 credit will not be granted if credit already received for freshmen composition courses under the following former designators: ENGC 1011, ENGC 1011H, ENGC 1012, ENGC 1012H, ENGC 1013, ENGC 1013H, ENGC 1014, ENGC 1014H, ENGC 1015, ENGC 1016, RHET 1101; Credit will not be granted if credit has been received for: WRIT 1301;
Instructor: STAFF
Description: WRIT 1301 fulfills the first-year writing requirement. It involves critical reading, writing, and thinking as students practice some of the types of writing they may expect in their academic audience. Classroom activities include discussion of readings, peer review, informal writing assignments. Students master the concepts of audience, purpose, and context to demonstrate effective communication both for and beyond an academic audience. Classroom activities include discussion of readings, peer review, informal writing assignments. Students study the revision process to achieve their writing goals. Students use University libraries to locate, evaluate, and apply scholarly sources. Some sections may focus on writing with and for new media. Some sections may include a service-learning component.
Style: 10% Lecture, 35% Discussion. Instructor-directed work on writing assignments, including one-to-one conferences.
Grading: 80% reports/papers, 20% class participation.
Percentages may vary slightly by section. Class participation includes required in-class writing.

**WRIT 1905 Topics: Freshman Seminar: Information Gathering Techniques in Social Science**

A-F only, 3 credit(s); prerequisite: Meets CLE req of Civic Life and Ethics; meets CLE req of Writing Intensive;
Instructor: Bruch Jr,Patrick Leonard
Description: This seminar will introduce students to the intellectual projects of studying and participating in higher
education as a participatory institution by inviting students into critical dialogue with past, present, popular, and academic, representations of higher education and its civic purposes. We will examine the shifting role of the university in public life and the roles that students and other constituencies have played in shaping the character of higher education through writing and other activities. Designed specifically for first-year students, the course will combine academic skill building with personal and collective reflection on the actual and possible purposes and values of higher education for individuals and the society.

WRIT 1910W Topics: Freshman Seminar: (Un)Settling the West: Revolution to Removal
3 credit(s); prereq Fr; Meets CLE req of Writing Intensive;
Instructor: Ross Jr,Donald
Description: (Un)settling the U.S. West from the Revolution to Indian Removal in the 1830s in the six decades after 1776, over four million (white) Americans migrated from the East coast to the Ohio and Mississippi river valleys. There they found dozens of Native American nations that had been in place for centuries, and they used a combination of treaties and (rarely) military conflict to displace the Native Americans to the west of the Mississippi river. This seminar will combine travel accounts that preceded white settlement, statements of public policy, settlers' narratives and poetry, and the few texts by Native Americans to figure out what people on the frontier thought was happening. There will be a CourseLib page at the Library.
Style: 10% Lecture, 75% Discussion, 15% Small Group Activities.

WRIT 3001 Introduction to Scientific and Technical Communication
A-F only, 2 credit(s);
Instructor: STAFF
Description: Research origines/history. Defining technical communication in professional world. Focuses on audience, purpose, ethics, global communication, and collaboration. Journal articles, student/professional organizations, guest presentations, interviews. Career assessment inventories, in-class/electronic discussions, oral presentations, feasibility report.

WRIT 3029W Business and Professional Writing
3 credit(s); Credit will not be granted if credit has been received for: ENGL 3029W; Meets CLE req of Writing Intensive;
Instructor: Weinberg,Joe
Description: Practice writing for various purposes/audiences. Using styles, tones, and organizational elements. Potential genres include proposals, reports, Web content, e-mail, executive summaries, job search portfolios. Workplace collaboration, issues of professional literacy.

WRIT 3029W Business and Professional Writing
3 credit(s); Credit will not be granted if credit has been received for: ENGL 3029W; Meets CLE req of Writing Intensive;
Instructor: Bush,William M
Description: Student may contact the instructor or department for information.

WRIT 3152W Writing on Issues of Science and Technology
A-F only, 4 credit(s); prereq credit will not be granted if credit already received for: Writ 1152W;
Instructor: Patterson,Tad
Description: Student may contact the instructor or department for information.

WRIT 3221W Communication Modes and Methods
4 credit(s); prereq Credit will not be granted if the student has already completed Rhet 3221W Soph or jr or sr; Meets CLE req of Writing Intensive;
Instructor: Graff,Richard J
Description: Major topic areas include theories of language and nonverbal communication, models of relational communication, and methods of rhetorical criticism. In addition to introducing the theories, the course seeks to develop competencies in evaluating and applying them in the analysis of communication occurring in the context of interpersonal relationships, the mass media, and cyberspace. The course also encourages reflection on issues such as gender and race in everyday language use and the societal impact of new communication technologies. Discussion, lecture. Writing intensive.
Style: 25% Lecture, 70% Discussion, 5% Small Group Activities.
Grading: 10% mid exam, 10% final exam, 60% reports/papers, 10% quizzes, 10% class participation.

WRIT 3257 Scientific and Technical Presentations
3 credit(s); prereq COMM 1101 or instr consent ;
Instructor: Graff, Richard J
Description: Student may contact the instructor or department for information.

WRIT 3291 Independent Study
1-3 credit(s), max credits 6; prereq instr consent , dept consent ;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

WRIT 3361 Literature of Social Movements in the United States: 1950 to 2000
A-F only, 3 credit(s); prereq Soph or jr or sr or instr consent ;
Instructor: Schuster, Mary Lay
Description: This course focuses on six social movements in the last half of the twentieth century in order to demonstrate how literary analysis helps us understand the personal and political reasons why people become involved in social movements and how they express their arguments and ideologies within the public arena. It also focuses on how literary analysis helps us understand how and why authors and film makers have attempted to capture the events and the ideologies of these acts of protest and the responding acts of control. The course satisfies both a CLE literature core requirement and a citizenship and public ethics theme requirement. Thus, the course investigates how these arguments and ideologies, these personal and political reasons, are represented in works of fiction (novels, drama, and film) and in memoirs and documentaries. The six social movements examined within the course are as follows: Civil Rights Movement, Women's Movement, Vietnam War Protests, AIDS Activism, Disability Movement, and Environmental Movement. Through class discussion and reading, we will identify the persuasive strategies involved in these movements (the rhetorical stances that people for and against the movement might take), the motivations for involvement and commitment on one side or the other, the public expression of these ideas and commitments, and the degree and kind of action taken. We then identify the literary expression of the ideals of each movement as interpreted by a novelist, playwright, documentary filmmaker, and/or popular filmmaker. One of the central questions of the course is why and how people tell stories about important social events--what choices they make in terms of plot, point of view, character, theme, and setting, and why they seem to make these choices to achieve the desired effects on the reader or viewer. The course also invites a critique of the success of these literary or visual efforts given the knowledge we have about the events depicted and the ideologies that drove the events or the historical and contemporary contexts. The other central question of the course is to assess how social movements function rhetorically to persuade and influence public debate and democratic political
WRIT 3731 Technology, Self, and Society
A-F only, 3 credit(s); meets CLE req of Writing Intensive;
Instructor: Thomas-Pollei, Kimberly A.
Description: A fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. This course introduces students to modern cultural movements and the role that written texts play in bringing about and consolidating them. The focus of the course is a study of how written texts, from artist manifestos to feminist underground 'zines, contribute to movements in art and culture. How, for example, did Picasso's written statements about painting serve to define and extend understanding of Cubism? How did online and other writing by political movements such as MoveOn.org come to define and extend understanding of applied visual rhetoric in various media? You will produce at least 16, but more likely 20, pages of polished writing and will engage in extensive critical reading, writing, and reflecting on the complex interplay between technology, culture, and society.

WRIT 3731 Visual Rhetoric and Document Design
A-F only, 3 credit(s); prereq Jr or sr;
Instructor: Horvath, Barbara Ann
Description: In this course, students learn a system for analyzing and applying principles of visual rhetoric for various media. Topics include examining and applying visual strategies to design projects, reader perception, exploring software applications, typography, and data displays.

WRIT 3751W Seminar: Theory and Practice of Writing Consultancy
4 credit(s); prereq Currently working in a University writing center, instr consent credit will not be granted if credit received for: 3607; Meets CLE req of Writing Intensive;
Instructor: Jamsen, Kirsten
Description: A seminar in the theory and practice of teaching writing through one-to-one consultations. Students will assume that writing is a process with many stages, not one simple end product, and that all writers, no matter how successful, can benefit from receiving thoughtful feedback and engaging in serious revision of their writing. Students will have the opportunity to work individually with clients to develop their understanding of writing, to conduct research on the process and teaching of writing, and to understand the role of communities that support teaching and learning. This course is writing-intensive, which means it involves regular informal and formal writing assignments with instructor feedback and completion of at least 10 pages of polished formal writing. You will produce at least 16, but more likely 20, pages of polished writing and will engage in extensive critical reading, writing, and reflecting on the complex interplay between technology, culture, and society.
WRIT 4573W Writing Proposals and Grant Management
A-F only, 3 credit(s); prereq [[3562W or equiv], ([jr or sr] STC major or grad student)[ or instr consent ]; Meets CLE req of Writing Intensive;
Instructor: Longo.Bernadette
Description: Students will participate in grant writing project(s) with community partners, working in collaboration with the UMN Community Service-Learning Center. After taking this class, students should be able to research funding sources, understand elements of a Request for Proposals (RFP), and write grants that address the key points of the RFP. Microsoft Project will not be taught during this semester.
Style: 10% Lecture, 20% Discussion, 20% Small Group Activities, 10% Student Presentation, 20% Web Based, 20% Service Learning, will work with client organization
Grading: 30% reports/papers, 50% special projects, 10% in-class presentation, 10% class participation.
Exam Format: essay

WRIT 5001 Introduction to Graduate Studies in Scientific and Technical Communication
A-F only, 3 credit(s); prereq Grad student or instr consent ;
Instructor: Longo.Bernadette
Description: This course introduces students in Scientific & Technical Communication and graduate students in related fields to issues in the field of scientific & technical communication, such as professional code of practice, audience analysis, media selection, international communication, legal concerns, usability, and issues specific to fields such as medicine, information design, or computing development. Issues may change from semester to semester. Recommended for students in their first semester or two of graduate coursework.
Style: 20% Lecture, 30% Discussion, 20% Small Group Activities, 10% Student Presentation, 10% Guest Speakers, 10% Web Based, in-class groups
Grading: 20% mid exam, 30% final exam, 30% reports/papers, 20% in-class presentation.
Exam Format: essay

WRIT 5051 Graduate Research Writing Practice for Non-native Speakers of English
3 credit(s); prereq Grad student;
Instructor: Holt.Sheryl Lynn
Description: Graduate-level writing techniques/formats for summaries, critiques, research, and abstracts. Persuasion, documentation, structure, grammar, vocabulary, field-specific requirements. Writing through several drafts, using mentor in specific field of study. Revising/editing to meet graduate standards. Discussions.

WRIT 5196 Internship in Scientific and Technical Communication
S-N only, 3-6 credit(s), max credits 6, 1 completion allowed; prereq STC grad or instr consent ;
Instructor: Staff
Description: Student may contact the instructor or department for information.

WRIT 5270 Special Topics
1-3 credit(s), max credits 3, 1 completion allowed; prereq [[STC or RSTC] [major or grad student]], instr consent ;
Instructor: Staff
Description: Student may contact the instructor or department for information.

WRIT 5291 Independent Study
1-3 credit(s), max credits 3, 1 completion allowed; prereq instr consent, dept consent;
Instructor: Staff
Description: Student may contact the instructor or department for information.

WRIT 5511 Research in Scientific and Technical Communication
A-F only, 3 credit(s);
Instructor: Gurak PhD,Laura J
Description: Student may contact the instructor or department for information.

WRIT 5531 Introduction to Writing Instruction: Composition Pedagogy
A-F only, 3 credit(s); prereq Grad student;
Instructor: Reynolds,Thomas Joseph
Description: Student may contact the instructor or department for information.

WRIT 5776 Major Figures in Rhetorical Tradition: Modern Era
A-F only, 3 credit(s);
Instructor: Walzer,Arthur Eugene
Description: Student may contact the instructor or department for information.

WRIT 8011 Research Methods in Writing Studies and Technical Communication
A-F only, 3 credit(s); prereq STC/RSTC grad student or instr consent ;
Instructor: Breuch,LEE-ANN Kastman
Description: Quantitative/qualitative research methods. Theoretical perspectives that demonstrate/test analytical approaches to scientific/technological rhetoric.

WRIT 8510 Topics in Rhetorical Theory, History, and Criticism: Seminal Debates in Composition Studies
A-F only, 3 credit(s), max credits 12, 4 completions allowed; prereq 5775 or equiv;
Instructor: Bruch Jr,Patrick Leonard
Description: Student may contact the instructor or department for information.

WRIT 8550 Topics in Technology and Culture: Mashing Culture: Rhetoric, Arts, & the Internet
A-F only, 3 credit(s), max credits 12, 4 completions allowed; Instructor: Logie,John
Description: MASHING CULTURE: RHETORIC & THE ARTS in an INTERNET ERA "Mashing Culture" is an investigation into the distinctive rhetorical and artistic practices that have arisen in the wake of the widespread adoption of high-speed connections to the Internet. The phenomenon of the mashup will be our jumping off point for this class. This still-fluid term has recently been used to describe: ---- musical compositions that draw from two or more existing compositions; ---- computer or Internet applications that combine the functions of two or more existing applications; ---- contemporary novels that disrupt canonical narratives with attacks from B-movie monsters (e.g. Pride and Prejudice and Zombies); ...and these are only some of the most common applications of mashup as a descriptive term. Scholars whose work addresses the intersections of rhetoric and Internet studies have long speculated that digital media could and should prompt a greater emphasis on the fifth and final rhetorical canon: delivery. The mashup phenomenon suggests that the canons of arrangement and style are also increasingly valued as these compositions achieve broader cultural acceptance. To join them and extend their arguments, we'll read some "classic" theoretical work on authorship and invention (Barthes, Benjamin, Foucault, Quintilian); some recent articles addressing the maddening magnificence of current media; and we will work together to develop theoretical tools adequate to the tasks of effectively describing, critiquing, and producing the multimodal, multimedia compositions of the 21st Century. And for the final project, you won't "write" a "paper", but you will compose one bodacious scholarly argument. Anticipated texts/media include: --- Lawrence Lessig's Remix: Making Art and Commerce Thrive in the Hybrid Economy --- Brett Gaylor's Rip! A Remix Manifesto --- Benjamin Franzen and Kembrew McLeod's Copyright Criminals --- Stefan Sorvillo-Weiss' Mashup Cultures --- an array of recent articles from rhetoric, cultural studies, and related disciplines --- the occasional exemplary Youtube mashup
Style: 20% Lecture, 5% Film/Video, 50% Discussion, 20% Web Based, in-class groups
Grading: The syllabus is not finalized yet, but look for significant weighting on the final project, paired with reasonable smaller
YOST 1001 Seeing Youth, Thinking Youth: Media, Popular Media, and Scholarship

3 credit(s);

Instructor: Baizerman, Michael Leon

Description: This course is our invitation to meet and engage the field of Youth Studies and the Youth Studies Program. By the end of our fifteen weeks together, we expect you to be better able to notice that young people around you in your everyday lives; wonder about them and their lives and worlds; name, describe and analyze what you see and hear, watch, read and look up about youth. And we suspect that while you are doing this, you will also become more attentive to your own everyday life and, indeed, to yourself as a youth. For some of you, this may lead to reflecting on your life's work, on your occupational future and vocational call. This too is encouraged. As always in our Youth Studies Program, this course is about all young people, in Minnesota, in the United States and also internationally. This means that we are attentive to and work hard at including material about youth from all ethnic/racial, social class, geographic, sexual background and communities, as well as those who don’t speak English, have a variety of physical and mental capacities, are “ordinary”, “normal” and “typical”, or are not, as seen by themselves, adults and/or other youth. We are after the full range of young people and the full range of ways they live, are perceived, understood and responded to, directly and indirectly, e.g. in public policy, in shopping malls, at skateboard sites and in music venues, for example. We want you to read newspapers, teen magazines, and adolescent novels, watch television and movies, visit youth venues, and begin to make sense of all of this using scholarly perspectives, theories, concepts and research. We expect that you will spend at least three hours per week (of the nine total hours required for a three credit course) “in the field” — in the community watching, talking, being with and assisting teenagers. Along with the three class hours, this leaves three per week to read and write — i.e. for making sense of what you learn in class in relation to what you read and what you see and do in the community. The result should be a powerful scholarly experience, at once “practical”, reflective and integrative. This is an introductory course to a subject you know much about? you’ve lived its content, thought about it, and maybe even written poems, made a video or rapped about this life-moment. Since you know this so well, why take a university course on it? Because we believe that a course is a space and time to reflect, analyze and learn about what matters to you, about who you are (and where), about scholarly ways of reflecting, analyzing and learning about the work others have done on this topic. In these ways, this course introduces ways of being an engaged and thoughtful person, citizen and student. We want you to touch the everyday worlds of young people so we require that you do fieldwork. This is basic to all Youth Studies courses, and could help you decide whether this is the major you want.

Style: 20% Lecture, 15% Film/Video, 40% Discussion, 20% Small Group Activities, 5% Student Presentation.

Grading: 20% special projects, 20% written homework, 15% reflection paper, 5% in-class presentation, 40% class participation.

YOST 2241 Experiential Learning

4 credit(s); prereq [1001, 2001] or instr consent; Credit will not be granted if credit has been received for: YOST 5241;

Instructor: STAFF

Description: "The best thing for being sad," replied Merlyn, "...is to learn something. That is the only thing that never fails. You may grow old and trembling in your anatomies, you may lie awake at night listening to the disorder of your veins, ...you may see the world around you devastated by evil lunatics, or know your honor trampled in the sewers of baser minds. There is only one thing for it then - to learn. Learn why the world wags and what it means..." That is a relatively simple thing which the mind can never exhaust, never alienate, never be tortured by, never fear or distrust, and never dream of regretting. Learning is the thing for you.” T.H. White, The Once and Future King Youth work is often described as 'highly experiential' and transformative. But what does that really mean? What is learning? What makes something transformative? When is learning emancipatory? When is it oppressive? Youth workers understand, sometimes intuitively, that 'learning by doing' makes sense, but why? What does 'doing' really mean? What is learned in youth work? What should be learned? Is all experience equally valid, moral, and educative? What is the difference between active learning and experiential learning? This course will explore the wide range of definitions given to experiential learning and work towards a sound theoretical foundation for understanding it, particularly in the practice of youth work and the field of youth studies. Students will practice applying experiential learning theory across contexts, paying particular attention to culture, class, geography, age, and the formal to informal education continuum.

YOST 3234 Youth Agencies, Organizations, and Youth Service Systems

3 credit(s); prereq [Two soc/anth courses, work experience in youth [agency or org]] or instr consent; Credit will not be granted if credit has been received for: YOST 5234;

Instructor: STAFF

Description: A local teenager where to find the nearest youth agency and you may, or may not, receive a helpful answer. It all depends on whether that person has
established a relationship with the local Y, Boys and Girls Club, community center or recreation programs at the park. Ask about programs for youth and you are likely to get better answers, but ask about social policy, or the hospital and chances are your informant will have accurate answers. A quick Google search returns with over two hundred and sixty million hits for the word ‘youth,’ twenty million hits for the phrase ‘youth development,’ eight million for ‘youth organization,’ four and half million for ‘youth agency.’ What does all this tell us? There is a complex and busy world out there of policies, programs and organizations designed to impact the lives of young people, some would even say a youth development industry, but sometimes the very individuals the organizations target know little about them, or do not experience them as safe, constructive contributors to their everyday lives. Just because an agency, organization or service delivery system claims to help young people does not mean that it does in the eyes and experience of the youth it was designed to serve. We begin this course by discussing and analyzing our collective experience of working or participating in youth agencies, organizations or service systems. Over the course of the semester we bring these lived everyday understandings and experiences with youth agencies into conversation with theoretical ideas and concepts in youth and organizational studies and ask: *How do these theories and concepts frame and allow for deeper analysis and critical examination of experience and everyday knowledge of youth agencies, organizations, and service systems?* *How do our understandings in youth studies inform and provide frameworks for analyzing and critically thinking about the shape, function, and activities supported by youth agencies and organizations?* *What do both youth and organizational studies suggest as simple yet effective actions people who work with, for, or on the behalf of youth can take to create space inside of agencies, organizations, and service systems where good and meaningful work can begin and flourish?*

**YOST 3240 Special Topics in Youth Studies**
2-8 credit(s), max credits 10, 5 completions allowed; prereq [Two social sci courses, exp working with youth] or instr consent ; Credit will not be granted if credit has been received for: YOST 5240; Instructor: STAFF
*Description:* This course is designed to give UMN students the opportunity to learn about Hmong history, family, community development, and youth development. The main purpose of this course is to focus on the everyday lives of Hmong youth and the challenges and/or obstacles they face growing up in their community. UMN Hmong professors and community leaders will be invited as guest lecture during the semester. By the end of the semester, students will know about Hmong history, community, family and everyday youth lives, and culture and traditions of being a young Hmong.

**YOST 3291 Independent Study in Youth Studies**
1-8 credit(s), max credits 8; prereq instr consent ; Instructor: Stein,Jerome A
*Description:* Student may contact the instructor or department for information.

**YOST 3291 Independent Study in Youth Studies**
1-8 credit(s), max credits 8; prereq instr consent ; Instructor: Johnston-Goodstar PhD,Katie
*Description:* Student may contact the instructor or department for information.

**YOST 3291 Independent Study in Youth Studies**
1-8 credit(s), max credits 8; prereq instr consent ; Instructor: Ross PhD,Terrance Kwame
*Description:* Student may contact the instructor or department for information.

**YOST 3291 Independent Study in Youth Studies**
1-8 credit(s), max credits 8; prereq instr consent ; Instructor: Baizerman,Michael Leon
*Description:* Student may contact the instructor or department for information.

**YOST 4196 Work Youthwork Internship**
4 credit(s); prereq Declaration of youth studies major, instr consent ; Instructor: Johnston-Goodstar PhD,Katie
*Description:* This course is designed to introduce the practice field of youthwork and support your professional development as a youthworker. The overall goal is for us to explore how we can become better reflective and critical practitioners. This is the required course for the Youth Studies major but is open to all who have an interest in improving their capacity in critical and reflective practice and want to explore the field of youthwork. The course requires students to participate in both a weekly seminar and a direct youthwork internship. The focus in class is on integrating knowledge and youthwork skills for entry-level professional work with young people, individually and in groups. The focus of the supervised fieldwork is on what the experience of doing youthwork with real youth contextually teaches us professionally about affecting change in the lives of young people.

**YOST 4301 Communicating With Adolescents About Sexuality**
3 credit(s); prereq 1001 or 2020W or instr consent ; Instructor: STAFF
*Description:* The course will provide participants with increased knowledge and practical skills to communicate sensitively and effectively with adolescents and their concerned persons about sexuality in everyday life. Participants will explore a variety of adolescent sexual issues with a focus on healthy adolescent sexual development and diversity. With this perspective as a base, other topics will include gender, body image, sexual values, sexual orientation, sex and cyberspace, laws effecting young people and their bodies, disease concerns, adolescent sexual victimology and offenderology, sexual harassment and professional and ethical boundaries in working with youth. Pertinent theory, research, strategies and experience will be reviewed using historical and contemporary readings, films, daily news media, guest speakers, and participant interaction in a safe, sensitive and even fun atmosphere. Note: This is not a course in human anatomy. It is a course examining the lived experience of young people as sexual beings. Nonetheless, every effort will be made to identify accurate anatomical and physiological language that complements the vernacular young people hear and use. Students will build a lexicon to facilitate talking about sexuality in a wide variety of cultural settings.

**YOST 4316 Media and Youth: Learning, Teaching, and Doing**
2 credit(s); prereq 1001 or 2101 or instr consent ; Credit will not be granted if credit has been received for: YOST 5316; Instructor: Johnston-Goodstar PhD,Katie
*Description:* This interactive course will introduce youth workers to media as a tool for working with youth. It will focus on a framework of critical media literacy. Critical media literacy means equipping young people with opportunities, processes and resources necessary for them to critically analyze, use, and produce various forms of media. It allows youth to engage issues and information of importance to themselves and their communities and provides them with a forum to present their ideas, experiences and opinions into the public dialogue. This class will review the theory and contemporary context of youth media practice. It will showcase exemplary youth media organizations from diverse communities and will introduce and provide hands-on practice with various forms of youth media such as: slam poetry, murals, film-making, social networking, youth magazines, hip-hop music, and photography.
*Style:* 20% Lecture, 20% Film/Video, 20% Discussion, 10% Small Group Activities, 10% Field Trips, 20% Guest Speakers. This class will be interactive & consist of lecture, film, discussion, presentation, group activities, guest speakers & field trips. Specific percentages will vary depending on class interest & the availability of community practitioners & sites.
*Grading:* 25% special projects, 25% reflection paper, 25% in-class presentation, 25% class participation.

**YOST 4323 Work with Youth: Groups**
A-F only, 2 credit(s); prereq [[1001 or 2002W], 4321] or instr consent ; Credit will not be granted if credit has been
YOST 5323 Staff
Description: Humans are social creatures. Throughout the evolution of the human species, the ?group? has been instrumental in survival and the transmission of culture between generations. It is generally accepted that the ?group? is a key building block of the human experience and it has been argued that the "?indivdual" only knows itself in relation to the "?group". Because of its fundamental nature in human existence, the group has been a popular topic of study. Until recently, attempts to chronicle the phenomena of groups have been hampered by a "reductionistic" framework. This attempt to reduce complex phenomena into small measureable parts to be studied has inhibited the ability to capture the "?systemic" nature of groups. The power of the group is the dynamic interaction and interrelation of its component parts. Advances in general systems and chaos theory have increased our ability to fully grasp the essence of a group. There is a difference between group process and Group Work. Group processes are naturally occurring phenomena present when a collection of individuals form around a purpose. Group Work is the purposeful and intentional effort on the part of a practitioner to use group process to achieve a goal. This demands that the practitioner develop a working understanding of group process and develop the skills to effect group functioning. Numerous models have been developed to describe group process and subsequently prescribe the role of the practitioner as facilitator. Although Group Work's heritage is tied to the field of Social Work, the preponderance of these models are based upon a therapeutic framework. Currently, Youth Work (as a whole) is utilizing a solution-oriented perspective. This perspective is more in line with the early understanding of Group Work and is proving to be effective in helping youth develop the skills, knowledge and attitudes to be successful.

YOST 5324 Youth Agencies, Organizations, and Youth Service System Staff
Description: Ask a local teenager where to find the nearest youth agency and you may, or may not, receive a helpful answer. It all depends on whether that young person has established a relationship with the local Y, Boys and Girls Club, community center or recreation programs at the park. Ask about programs for youth and you are likely to get better answers, but ask about school, the police, or the hospital and chances are your informant will have accurate answers. A quick Google search returns with over two hundred and sixty million hits for the word 'youth'; twenty million hits for the phrase 'youth development,' eight million for 'youth organization,' four and half million for 'youth agency.' What does all this tell us? There is a complex and busy world out there of policies, programs and organizations designed to impact the lives of young people, some would even say a youth development industry, but sometimes the very individuals the organizations target know little about them, or do not experience them as safe, constructive contributors to their everyday lives. Just because an agency, organization or service delivery system claims to help young people does not mean that it does in the eyes and experience of the youth it was designed to serve. We begin this course by discussing and analyzing our collective experience of working or participating in youth agencies, organizations or service systems. Over the course of the semester we bring these lived everyday understandings and experiences with youth agencies into conversation with theoretical ideas and concepts in youth and organizational studies and ask: "How do these theories and concepts frame and allow for deeper analysis and critical examination of experience and everyday knowledge of youth agencies, organizations, and service systems? "How do our understandings in youth studies inform and provide frameworks for analyzing and critically thinking about the shape, function, and activities supported by youth agencies and organizations? "What do both youth and organizational studies suggest as simple yet effective actions people who work with, for, or on the behal of youth can take to create space inside of agencies, organizations, and service systems where good and meaningful work can begin and flourish?"

YOST 5321 Independent Study in Youth Studies Staff
Description: Student may contact the instructor or department for information.

YOST 5301 Communicating With Adolescents About Sexuality Staff
Description: The course will provide participants with increased knowledge and practical skills to communicate sensitively and effectively with adolescents and their concerned persons about sexuality in everyday life. Participants will explore a variety of adolescent sexual issues with a focus on healthy adolescent sexual development and diversity. With this perspective as a base, other topics will include gender, body image, sexual values, sexual orientation, and cyberspace, laws affecting youth people and their bodies, disease concerns, adolescent sexual victimology and offenderology, sexual harassment and professional and ethical boundaries in working with youth. Pertinent theory, research, strategies and experience will be reviewed using historical and contemporary readings, films, daily news media, guest speakers, and participant interaction in a safe, sensitive and even fun atmosphere. Note: This is not a course in human anatomy. It is a course examining the lived experience of young people as sexual beings. Nonetheless, every effort will be made to identify accurate anatomical and physiological language that complements the vernacular young people hear and use. Students will build a lexicon to facilitate talking about sexuality in a wide variety of cultural settings.

YOST 5316 Media & Youth: Learning, Teaching, and Doing Staff
Description: Student may contact the instructor or department for information.

YOST 5323 Work with Youth--Groups Staff
Description: Humans are social creatures. Throughout the evolution of the human species, the "?group" has been instrumental in survival and the transmission of culture between generations. It is generally accepted that the "?group" is a key building block of the human experience and it has been argued that the "?indivdual" only knows itself in relation to the "?group". Because of its fundamental nature in human existence, the group has been a popular topic of study. Until recently, attempts to chronicle the phenomena of groups have been hampered by a "reductionistic" framework. This attempt to reduce complex phenomena into small measureable parts to be studied has inhibited the ability to capture the "?systemic" nature of groups. The power of the group is the dynamic interaction and interrelation of its component parts. Advances in general systems and chaos theory have increased our ability to fully grasp the essence of a group. There is a difference between
group process and Group Work. Group processes are naturally occurring phenomena present when a collection of individuals form around a purpose. Group Work is the purposeful and intentional effort on the part of a practitioner to use group process to achieve a goal. This demands that the practitioner develop a working understanding of group process and develop the skills to effect group functioning. Numerous models have been developed to describe group process and subsequently prescribe the role of the practitioner as facilitator. Although Group Work’s heritage is tied to the field of Social Work, the preponderance of these models are based upon a therapeutic framework. Currently, Youth Work (as a whole) is utilizing a solution-oriented perspective. This perspective is more in line with the early understanding of Group Work and is proving to be effective in helping youth develop the skills, knowledge and attitudes to be successful.