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: Grossman, Elizabeth Susan
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.

AHS 1602 Experiences in Health
1 credit(s); prereq 1601, instr consent;
Instructor: Todd, Tricia
Description: Student may contact the instructor or department for information.

AHS 6001 Emergency Readiness Rounds
S-N only, 0.5 credit(s), max credits 1;
Instructor: Olson, Debra Kay
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: Deng, Mingcherng
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: White, Paul Andrew
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: Student may contact the instructor or department for information.

ACCT 3201 Intermediate Management Accounting
A-F only, 2 credit(s); prereq 3001, acct or finance major;
Instructor: White, Paul Andrew
Description: Student may contact the instructor or department for information.

ACCT 5102 Intermediate Accounting II
A-F only, 4 credit(s); prereq 5101[ mgmt or grad mgmt student];
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 cashflow statements and earnings per share calculations. Students need a thorough background in financial accounting and present value calculations to do well in Acct 5102.
Style: 100% Lecture.
Grading: 47% mid exam, 25% final exam, 19% reports/papers, 9% other evaluation.
Exam Format: Open-ended questions 85+%; essays 10-15%; 4-6 questions per exam; exams are long and run the full class period

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: Balina, 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: Guterman, 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.
Acct 5100 Financial Statement Analysis  
A-F only, 2 credit(s); prereq [5100/6100 or 3101/5101], [accounting or finance major];  
Instructor: Bell, Frank J  
Description: Student may contact the instructor or department for information.

Acct 5180 Consolidations and Advanced Reporting  
A-F only, 2 credit(s); prereq [5102, mgmt or grad mgmt student];  
Instructor: Biondich, Nick E  
Description: Student may contact the instructor or department for information.

Acct 5236 Introduction to Taxation of Business  
A-F only, 2 credit(s); prereq 5135, acct major;  
Instructor: Guterman, 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 memoranda.  
Style: 60% Lecture, 15% Discussion. Problems  
Grading: 40% mid exam, 40% final exam, 20% other evaluation.  
Exam Format: multiple choice + short essay

Acct 6100 Financial Statement Analysis  
A-F only, 4 credit(s); prereq MBA 6030, MBA student;  
Instructor: Cailliendo, Charles Michael  
Description:

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.

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

Aem 2012 Dynamics  
A-F only, 3 credit(s); prereq 2011, [concurrent enrollment Math 2373 or equiv], IT student;  
Instructor: STAFF  

Aem 2301 Mechanics of Flight  
A-F only, 3 credit(s); prereq PHYS 1301W, [Concurrent registration is required (or allowed) in MATH 2373 or equiv], IT;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

Aem 4202 Aerodynamics  
A-F only, 4 credit(s); prereq upper div IT or grad, 4201;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

Aem 4203 Aerospace Propulsion  
A-F only, 4 credit(s); prereq 4202, [IT upper div or grad student];  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

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

Aem 4302 Spacecraft Attitude Dynamics and Control  
A-F only, 3 credit(s); prereq [4301, IT upper div] or grad student;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

Aem 4303W Flight Dynamics and Control  
A-F only, 4 credit(s); prereq [2301, [ENG 1011 or equiv], [IT upper div or grad student]] or instr consent; Meets CLE req of Writing Intensive;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

Aem 4333 Aerospace Design III-Special Projects  
3 credit(s), max credits 6; prereq 4331 or instr consent;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

Aem 4495 Problems in Dynamics and Control  
1-3 credit(s), max credits 6, 6 repeats allowed; prereq dept consent;  
Instructor: STAFF  
Description: Topics of current interest. Individual projects with consent of faculty sponsor.
AEM 4501 Aerospace Structures  
A-F only, 3 credit(s); prerequisite IT upper div or grad, 3031 or equiv;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

AEM 4511 Mechanics of Composite Materials  
3 credit(s); prerequisite 3031, IT upper div or grad student;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

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

AEM 4601 Instrumentation Laboratory  
A-F only, 3 credit(s); prerequisite CSci 1113, EE 3005, EE 3006, [upper div IT or grad student];  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

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

AEM 5245 Hypersonic Aerodynamics  
A-F only, 3 credit(s); prerequisite 4202, [grad student or upper div IT];  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

AEM 5431 Trajectory Optimization  
A-F only, 3 credit(s); prerequisite 4321 or EE 4231 or ME 5281 or equiv;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

AEM 5503 Theory of Elasticity  
A-F only, 3 credit(s); prerequisite 4501 or equiv, Math 2263 or equiv or instr consent;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

AEM 8202 Fluid Mechanics II  
3 credit(s); prerequisite 8201;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

AEM 8251 Finite-Volume Methods in Computational Fluid Dynamics  
3 credit(s); prerequisite 4201 or 8201 or equiv, CSci 1107 or equiv;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

AEM 8421 Robust Multivariable Control Design

AEM 8525 Elastic Stability of Materials  
A-F only, 3 credit(s); prerequisite IT grad student, familiarity with theory of linear algebra;  
Instructor: Elliott, Ryan S.  
Description: Student may contact the instructor or department for information.

AEM 8551 Multiscale Methods for Bridging Length and Time Scales  
A-F only, 3 credit(s); prerequisite Basic knowledge of [continuum mechanics, atomic forces], familiarity with partial differential equations, grad student in [engineering or mathematics or physics];  
Instructor: James, Richard D  
Description: Student may contact the instructor or department for information.

AEM 8595 Selected Topics in Mechanics and Materials  
1-4 credit(s), max 8 repeats allowed; prerequisite department consent;  
Instructor: STAFF  
Description: Topics of current interest. Individual projects with consent of faculty sponsor.

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

AIR 1105 Introduction to the Air Force Today II  
A-F only, 1 credit(s);  
Instructor: Polsgrove, Kelly 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: Marsh, Patrick R  
Description: Student may contact the instructor or department for information.

AIR 1205 Quality Air Force, Group Leadership Problems, and Presentation Techniques  
A-F only, 1 credit(s);  
Instructor: Marsh, Patrick R  
Description: Student may contact the instructor or department for information.

AIR 3302 Air Force Officership, Quality, and Communication  
A-F only, 3 credit(s); prerequisite 3301 recommended;  
Instructor: Marsh, Patrick R  
Description: Student may contact the instructor or department for information.

AIR 3402 Preparation for Active Duty  
A-F only, 3 credit(s);  
Instructor: Ballinger, Douglas A  
Description: Student may contact the instructor or department for information.

Afro-American Studies
AFRO 3002 West African History: 1800 to Present  
3 credit(s); Meets CLE req of Historical Perspective Core;  
meets CLE req of International Perspect Theme;  
Instructor: Colfman, Victoria Bomba  
Description: This course, which is deeply and firmly rooted in the African past, is also very current and relevant for Africa of today and tomorrow. It provides the historical information for understanding and evaluating the recent wars in Liberia and Sierra Leone and the current period of reconstruction in both countries. It helps too, in evaluating the current tensions in Ivory Coast. Students planning travel, course work, or internships in West Africa and students with African backgrounds, will find valuable and timely information about the places they know or will visit. This can contribute to providing the building blocks of development and future planning which meets people "where they are" and therefore increases the chances for success. This information can also help understanding and planning for other parts of the continent. Themes of this course include the study of continuities with the pre-nineteenth century African past, and the profound, even revolutionary changes of the nineteenth century. The impact of increasing contact with the Atlantic world, the continued spread of Islam, the European and American Industrial Revolution, the impact of colonial rule and the drastic changes in political and economic organization in West Africa in the last two hundred years, have led to a very difficult post-colonial period in the last forty-five years. There are signs today, of hope, of difficult lessons learned, signs of concrete roads to take towards a healthy, fruitful West African future.  
Style: We use written works and oral traditions and oral history as sources of our information, along with videos. 

AFRO 3108 Black Music: A History of Jazz  
3 credit(s); Meets CLE req of Cultural Diversity Theme;  
meets CLE req of Other Humanities Core;  
Instructor: Williams, Yolanda Y  
Description: 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 musical elements such as form, instrumentation, etc., and life interact and evolve.  
Style: 35% Lecture, 35% Discussion. Outside listening (live and recorded).  
Grading: 20% mid exam, 20% final exam, 30% reports/papers, 10% problem solving, 20% other evaluation. Annotated Bibliography.  
Exam Format: Multiple choice, essay and listening. 

AFRO 3112 In the Heart of the Beat: the Poetry of Rap  
A-F only, 3 credit(s);  
Instructor: Patel, Alexis D.  
Description: This course is designed to increase the understanding of contemporary African American poetry as expressed by popular culture contributors. Students are asked to analyze and evaluate some of the poems that are used in the music of rap in the context of African American literature, American culture and aesthetics in general. Students must read 3-5 texts. Students must write a journal about each book. These journals, class participation through group and individual recitation along with a final academic paper comprise the evaluative components of this course. 

AFRO 3426 African Americans, Social Policy, and the Welfare State  
3 credit(s); Meets CLE req of Cultural Diversity Theme;  
Instructor: Mayes, Keith A  
Description: This is a course on the history of public and social policy and African Americans. It attempts to familiarize students with some of the most pertinent issues that continue to dominate the news. This course seeks to place into historical context the present-day commentary on social security, affirmative action, welfare, healthcare, and incarceration. Instead of focusing on political movements, we will address the outcome and manifestation of social and political movements, mainly policy concerns and questions. We will begin with the period that ushered in the tradition of social policy—the New Deal. The New Deal, the Great Society, and other attempts by the federal government to involve itself in the lives of ordinary people will be at the center of our course. But we will go beyond this and explore the racial, class, and gender implications of social and public policy. How are African-Americans situated within the welfare state? Do African-Americans receive and share in social benefits to the same degree as other groups? How are African-Americans impacted by education policies such as affirmative action and busing, reforms in welfare, sentencing, and incarceration? What presidential administrations have been amenable to policies that address the problems facing African-Americans? The goal of the course is to turn students into policy-makers. 

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 Historical Perspective Core; Meets CLE req of International Perspect Theme;  
Instructor: STAFF  
Description: Early African farmers and hunters, men and women, kings and queens, commoners and slaves long stood at the center - not the margins -- of global change. From the rise of agriculture to the culmination of the slave trades, Africans actively borrowed ideas, technologies, and foods, guns, and other goods from Asian and European "strangers." But they profoundly influenced these strangers as well, contributing innovative ideas, technologies, cultural expressions, and wealth. Through close study of oral traditions, epic, archaeological data, food, autobiography, and film, we will investigate early Africans' global connections. Environment plays an important role in our study; we explore the ways that Africans creatively adapted to and altered the continent's diverse environments, and how their choices shaped the kinds of societies in which they lived. By immersing ourselves in Africa's early history, we will also begin to understand and to critique how and why contemporary western media has come to portray Africans as "marginal" to global change. 

AFRO 3543 Psychology and the Black American Experience  
3 credit(s); Meets CLE req of Cultural Diversity Theme;  
Instructor: Barner II, Pearl  
Description: The purpose of this course is to enhance the students' understanding of some psychological aspects of the African American experience. Lectures, discussions, readings and experiential activities will be utilized. Several major influences which include (but is not limited to) slavery, racial oppression, education and African values/africanisms will receive focus. The development of Black/African Psychology, African and Western/European worldview contrasts, self concept, identity, spirituality/religion, relationships and psychological functioning will all receive attention as well. It is hoped that the topics/issues explored will better prepare students to critically examine and understand some unique features of the psychological experience of African/Black American women, men and youth.  
Style: 35% Lecture, 35% Discussion.  
Grading: 15% mid exam, 20% final exam, 15% reports/papers, 20% in-class presentation, 30% class participation.  
Exam Format: multiple choice, essay, short answer  

AFRO 3594W Introduction to Contemporary Black Writers  
A-F only, 3 credit(s); Meets CLE req of Writing Intensive;  
Instructor: Fletcher, Pamela Rena  
Description: In this literature and writing intensive course, "Fire
Next Time: Black Men's Voices of Dissent," students will read, discuss, and write about the works of James Baldwin, Derrick Bell, Dr. MLK, Jr., Hill Harper, Nathan McCall, and El-Haj Malik El-Shabazz (aka Malcolm X). By using language as weapons, these men pose difficult questions, challenge the status quo, and seek to build a just society. This course will place heavy emphasis on student participation, so students are expected to attend class weekly and to engage in active class discussion regarding films and assigned readings. The paper assignments include six short papers (3-5 pages) regarding the texts and revisions.

Style: 20% Lecture, 80% Discussion. in-class activities
Grading: 70% reports/papers, 30% class participation.

AFRO 3598W Introduction to African American Literature and Culture II
4 credit(s); meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive;
Instructor: Pate,Alexs D.
Description: Student may contact the instructor or department for information.

AFRO 3601 Introduction to African Literature
3 credit(s); meets CLE req of International Perspect Theme; meets CLE req of Literature Core;
Instructor: Githire,Njeri R
Description: This course is designed to provide students with both a specific and general view of the diversity of literatures from the African continent. We read texts written in English or translated from African or Western languages, including some recorded from the oral tradition. The authors and narrators come from different parts of Africa (East, West, Central, North, South) and they have composed their work in a variety of forms (novel, drama, epic, poetry). In discussing this variety of literatures from a comparative context, we will assess the similarities and the differences apparent in the cultures from which they emerge.
Style: 40% Lecture, 20% Film/Video, 30% Discussion, 5% Small Group Activities, 5% Web Based.
Grading: 60% reports/papers, 10% quizzes, 20% class participation, 10% other evaluation.
Exam Format: Three papers written throughout the course of the semester;

AFRO 3634 Blues & Rhythm and Blues
3 credit(s);
Instructor: Williams,Yolanda Y
Description: Student may contact the instructor or department for information.

AFRO 3865 African American History: 1865 to the Present
4 credit(s); Credit will not be granted if credit has been received for: HIST 3865; meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core;
Instructor: Lindquist,Malinda A
Description: Student may contact the instructor or department for information.

Grading:
30% reports/papers, 10% attendance, 30% reflection paper, 20% in-class presentation, 10% class participation.

AFRO 3598W Introduction to African American Literature and Culture II
4 credit(s); meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive;
Instructor: Pate,Alexs D.
Description: Student may contact the instructor or department for information.

AFRO 3601 Introduction to African Literature
3 credit(s); meets CLE req of International Perspect Theme; meets CLE req of Literature Core;
Instructor: Githire,Njeri R
Description: This course is designed to provide students with both a specific and general view of the diversity of literatures from the African continent. We read texts written in English or translated from African or Western languages, including some recorded from the oral tradition. The authors and narrators come from different parts of Africa (East, West, Central, North, South) and they have composed their work in a variety of forms (novel, drama, epic, poetry). In discussing this variety of literatures from a comparative context, we will assess the similarities and the differences apparent in the cultures from which they emerge.
Style: 40% Lecture, 20% Film/Video, 30% Discussion, 5% Small Group Activities, 5% Web Based.
Grading: 60% reports/papers, 10% quizzes, 20% class participation, 10% other evaluation.
Exam Format: Three papers written throughout the course of the semester;

AFRO 3634 Blues & Rhythm and Blues
3 credit(s);
Instructor: Williams,Yolanda Y
Description: Student may contact the instructor or department for information.

AFRO 3865 African American History: 1865 to the Present
4 credit(s); Credit will not be granted if credit has been received for: HIST 3865; meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core;
Instructor: Lindquist,Malinda A
Description: Student may contact the instructor or department for information.

Grading:
30% reports/papers, 10% attendance, 30% reflection paper, 20% in-class presentation, 10% class participation.

AFRO 3598W Introduction to African American Literature and Culture II
4 credit(s); meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive;
Instructor: Pate,Alexs D.
Description: Student may contact the instructor or department for information.

AFRO 3601 Introduction to African Literature
3 credit(s); meets CLE req of International Perspect Theme; meets CLE req of Literature Core;
Instructor: Githire,Njeri R
Description: This course is designed to provide students with both a specific and general view of the diversity of literatures from the African continent. We read texts written in English or translated from African or Western languages, including some recorded from the oral tradition. The authors and narrators come from different parts of Africa (East, West, Central, North, South) and they have composed their work in a variety of forms (novel, drama, epic, poetry). In discussing this variety of literatures from a comparative context, we will assess the similarities and the differences apparent in the cultures from which they emerge.
Style: 40% Lecture, 20% Film/Video, 30% Discussion, 5% Small Group Activities, 5% Web Based.
Grading: 60% reports/papers, 10% quizzes, 20% class participation, 10% other evaluation.
Exam Format: Three papers written throughout the course of the semester;

AFRO 3634 Blues & Rhythm and Blues
3 credit(s);
Instructor: Williams,Yolanda Y
Description: Student may contact the instructor or department for information.

AFRO 3865 African American History: 1865 to the Present
4 credit(s); Credit will not be granted if credit has been received for: HIST 3865; meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core;
Instructor: Lindquist,Malinda A
Description: Student may contact the instructor or department for information.

Grading:
30% reports/papers, 10% attendance, 30% reflection paper, 20% in-class presentation, 10% class participation.
AFEE 2096 Professional Practicum in Agricultural Education: Early Experience
A-F only, 1-3 credit(s); max credits 3, 1 repeat allowed;
Instructor: Westrom,Lyle Emil
Description: Student may contact the instructor or department for information.

AFEE 5112 Agricultural Education Program Organization and Curriculum for Youth
3 credit(s);
Instructor: Westrom,Lyle Emil
Description: Student may contact the instructor or department for information.

AFEE 5114 Agricultural Education Teaching Seminar
1 credit(s);
Instructor: Westrom,Lyle Emil
Description: Student may contact the instructor or department for information.

AFEE 5116 Coordination of SAE Programs: Work-based Learning
A-F only, 2 credit(s); prereq Agricultural education major or instr consent;
Instructor: Westrom,Lyle Emil
Description: Student may contact the instructor or department for information.

AFEE 5118 Strategies for Managing and Advising the FFA Organization
A-F only, 2 credit(s); prereq Agricultural education major or instr consent;
Instructor: Greiman,Brad
Description: Student may contact the instructor or department for information.

AFEE 5280 Current Issues for the Beginning Agricultural Education Teacher
1-3 credit(s); max credits 3, 1 repeat allowed;
Instructor: Greiman,Brad
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 repeat 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 repeat allowed;
Instructor: Greiman,Brad
Description: Student may contact the instructor or department for information.

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

AGRO 3131 Student Organic Farm Planning, Growing, and Marketing
3 credit(s); prereq [1101, 1103, BIOL 1001, 1009, HORT 1001] or instr consent; Credit will not be granted if credit has been received for: AGRO 5131;
Instructor: Porter,Paul M
Description: Student may contact the instructor or department for information.

AGRO 3203W Environment, Global Food Production, and the Citizen
3 credit(s); prereq Biol 1009 or equiv; Credit will not be granted if credit has been received for: AGUM 2224; Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Environment Theme; meets CLE req of Writing Intensive;
Instructor: Simmons,Steve Robert
Description: Sustainable production of food is crucial to survival. Different agricultural ecosystems have developed around the world that are influenced by and have an impact on the environment. Course examines how the environment constrains the capacity to produce food and the impact of agriculture on the environment. Topics include ecological properties of agricultural ecosystems, issues of biodiversity, natural resource conservation, pollution, water and waste management. The course utilizes interactive television to provide a media experience and features teaching methods that will allow students to resolve actual dilemmas. Students with no prior exposure to agriculture are encouraged to enroll. An introductory knowledge of biological concepts would be helpful.
Style: 45% Lecture. 45% Discussion. Decision Cases
Grading: 20% mid exam, 20% final exam, 40% reports/papers, 20% class participation.
Exam Format: short essay and multiple choice

AGRO 4005 Applied Crop Physiology and Development
4 credit(s), max credits 8; prereq [Chem 1011 or Chem 1021 or equiv], 8 cr in [biol or plant science];
Instructor: Brakke,Mary Patricia
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 repeats allowed; prereq 15 cr in agronomy, instr consent;
Instructor: Porter,Paul M
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 repeats allowed; prereq 15 cr in agronomy, instr consent;
Instructor: Jordan,Nicholas Royal
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 repeats allowed; prereq instr consent, COAFES undergrad, complete internship contract available in COAFES Career Services before enrolling; UC only;
Instructor: Cardwell,Vernon Bruce
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 Citizenship/Publ Ethics Theme; meets CLE req of International Perspect Theme;
AGRO 4401 Plant Genetics and Breeding
4 credit(s); prereq [Biol 1009 or equiv or grad], instr consent; Credit will not be granted if credit has been received for: HORT 4401.
Instructor: Thill, Christian A
Description: Student may contact the instructor or department for information.

AGRO 4505 Biology, Ecology, and Management of Invasive Plants
3 credit(s); prereq 4005, [Bio 3002 or equiv], Soil 2125, [Agro 2501 or Hort 1011];
Instructor: Wyse, Donald L
Description: Student may contact the instructor or department for information.

AGRO 5121 Applied Experimental Design
4 credit(s); prereq Stat 5021 or equiv or instr consent; Credit will not be granted if credit has been received for: ENT 5121;
Instructor: Ehike, Nancy Jo
Description: Student may contact the instructor or department for information.

AGRO 5131 Student Organic Farm Planning, Growing, and Marketing
3 credit(s); prereq [1101, 1103, BIOL 1001, BIOL 1009, HORT 1001] or instr consent; Credit will not be granted if credit has been received for: AGRO 3131;
Instructor: Porter, Paul M
Description: Student may contact the instructor or department for information.

AGRO 5999 Special Topics: Workshop in Agronomy
1-6 credit(s), max credits 6, 3 repeats allowed; prereq Jr or Sr or grad student;
Instructor: Porter, Paul M
Description: Student may contact the instructor or department for information.

AGRO 8241 Molecular and Cellular Genetics of Plant Improvement
3 credit(s); prereq GCB 5034 or equiv or instr consent;
Instructor: Muehlaber, Gary John
Description: Student may contact the instructor or department for information.

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

AGRO 8280 Current Topics in Applied Plant Sciences
S-N only, 1 credit(s); prereq Grad major in agro or applied plant sciences or ent or hort or plant brdg or plant path or soil or instr consent;
Instructor: Thill, Christian A
Description: Student may contact the instructor or department for information.

Akkadian
330 Folwell Hall

AKKA 5012 Elementary Akkadian II
3 credit(s); prereq 5011;
Instructor: von Dassow, Eva
Description: Student may contact the instructor or department for information.

American Indian Studies
2 Scott Hall

AMIN 1001 American Indian Peoples in the United States
3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core;
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, literature, and the arts.

AMIN 3109 Anishinaabe Literature
A-F only, 3 credit(s); prereq 3103; Credit will not be granted if credit has been received for: AMIN 5109;
Instructor: Nichols, John David
Description: In this introduction to Anishinaabe oral literature in Anishinaabemowin, the Ojibwe language, we will read and analyze written transcriptions of performances in Anishinaabemowin of three main forms: aadizookaan (sacred story), dibajaajimowin (narrative), and nagamon (song). Topics discussed include oral literature as performance and text, verbal art in Anishinaabe life, history of written Anishinaabemowin, text editing and presentation, the Wenabozho/Nenabozho cycle, other aadizookaan, historical and personal narratives, song texts as poetry, and other forms of Anishinaabe literature. Completion of the third term of study of Ojibwe (Amin 3103) or fluency in Ojibwe is a prerequisite. The readings are accompanied by vocabulary lists, word-building notes, paradigms, and grammar notes to help students expand their knowledge of Anishinaabemowin.
Style: 15% Lecture, 85% Discussion.

AMIN 3143 Language in American Indian Culture and Society
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: ANTH 3143;
Instructor: Nichols, John David
Description: This is a survey of North American indigenous languages in social and cultural contexts from before European contact to the present. We will study the relations between the indigenous nations of North America and their languages. How many distinct peoples and languages are there? How are they related to each other or to peoples and languages elsewhere in the world? How do the languages reflect the cultures of their speakers? Is there grammar in indigenous languages? How do language change? What do the languages have to tell us about the history of North America? Can literature be oral and unwritten? Some of these questions are answered in Eskimo words.
for snow, sound symbolism, Plains sign language, Navajo code talkers, Sequoyah's invention of Cherokee writing, evidence and testimony in speaking Ojibwe, men's and women's speech, Michif - a mixed Native-French language of the Red River, North American place-names, Kickapoo whistle speech, ways of counting, and much more.

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

**Exam Format**: essay and multiple choice

**AMIN 3201W American Indian Literature**

3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive;

**Instructor**: Meland Ph.D., 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 Indian 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 the various writers approach this question and we will familiarize ourselves with the ideas, themes, and tools 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.

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

**AMIN 3201W American Indian Literature**

3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive;

**Instructor**: Bauerkemper, Joseph Karl

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

**AMIN 3301 American Indian Philosophies**

4 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Other Humanities Core;

**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 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.

**Grading**: 35% mid exam, 35% final exam, 17% reports/papers, 17% class participation.

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

**AMIN 3501 American Indian Tribal Governments and Politics**

A-F only, 3 credit(s); Credit will not be granted if credit has been received for: POL 3701; Meets CLE req of Citizenship/Publcs Ethics Theme; meets CLE req of Social Science Core;

**Instructor**: Wilkins, David E

**Description**: This course examines the origins, status, structures, and powers of American Indian governments and the distinctive politics associated with these First Nations who constitute the third set of sovereign governments in the U.S. whose existence long predates the federal and state governments. This course fulfills CLE requirements of Social Science core and Citizenship and Public Ethics themes.

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

**Grading**: 20% mid exam, 20% final exam, 40% reports/papers, 20% other evaluation. weekly questions based on readings.

**Exam Format**: long essays

**AMIN 3701 Ojibwe Culture and History**

3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core;

**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% mid exam, 40% reports/papers, 40% quizzes.

**AMIN 3711 Dakota Culture and History**

3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core;

**Instructor**: Staff

**Description**: This course focuses on Dakota culture and history. Our emphasis will be on the four bands of the Santee Dakotas: the Mdewakanton, Wahpekute, Wahpeton, and the Sisseton. The content of the course will be regionally based, that is, we will study primarily the Dakota bands located in Minnesota and eastern South Dakota. This course will introduce you to many aspects of Dakota culture. We will first begin with a historical overview of the Dakota people, this section will lead us to a significant event in Dakota History: the Uprising/War/Conflict of 1862. As you learn about Dakota history, you will also become aware of the culture of the Santee Dakota. This will involve oral history and narratives, music and dance, artistic expression, language, and discussions of contemporary issues relevant to the Dakota people. Target audience: anyone interested in American Indian Studies.

**Style**: 10% Lecture, 60% Discussion.

**Grading**: 20% mid exam, 20% final exam, 40% reports/papers, 10% in-class presentation, 10% class participation.

**Exam Format**: Multiple Choice, Essay

**AMIN 3713 American Indian Communities of the Great Lakes**

3 credit(s);

**Instructor**: Child, Brenda J

**Description**: This course is a study of American Indian communities of the Great Lakes over time, with particular attention to Ojibwe, Dakota, and H-Chunk experiences. In the period before contact with Europeans, Algonquins and Siouan peoples of the Great Lakes formed clans, social policies, political structures, and religious societies. Tribes collaborated in ways that transcended barriers of language and culture. For example, the Mononemies and Ho-Chunks enjoyed traveling together to the prairies for communal buffalo hunts. Great lakes tribes lived in and shaped an environment that at certain times of the year, such as during the autumnal wild rice harvest, allowed for abundance and a very rich life. The richness of the world Great Lakes tribes created was damaged, depressed, and altered but not destroyed by the arrival of EuroAmericans. We will consider the emergence of the fur trade and its impact on tribal economies and gender, the introduction of disease, treaties, wars, the establishment of reservations, the allotment policy, and the movement to assimilate American Indians into the mainstream of American society. We will explore recent decades in the history of Great Lakes Indian communities through discussion of boarding school experiences, environmental change, urbanization, political activism, the struggle for treaty rights, and the emergence of what some have termed the "new buffalo" of tribal gaming.
**American Sign Language**

240 VoTech Building

**ASL 1701 American Sign Language I**

5 credit(s);

**Instructor:** STAFF

**Description:** A study of the fundamentals of American Sign Language: Introduction to learning and understanding American Sign Language, cultural values and rules of behavior of the deaf community in the United States. Includes receptive and expressive readiness activities, sign vocabulary, grammatical structure, receptive and expressive finger spelling, and deaf culture.

**ASL 1702 American Sign Language II**

5 credit(s); prereq 1701 with a final grade of at least [S or C-] or instr consent 1701 with a final grade of at least [S or C-] or instr consent 1701 with a final grade of at least [S or C-] or instr consent ;

**Instructor:** STAFF

**Description:** Continuation of the study of the fundamentals of American Sign Language: Increased communication skill in American Sign Language, cultural values and behavioral rules of the deaf community in the U.S., receptive and expressive, sign vocabulary, grammatical structure, receptive and expressive finger spelling and aspects of deaf culture. (SP-ASL 1701 or instructor approval)

**ASL 3703 American Sign Language III**

5 credit(s); prereq 1702 with final grade of at least [S or C-] or instr consent 1702 with final grade of at least [S or C-] or instr consent 1702 with final grade of at least [S or C-] or instr consent ;

**Instructor:** STAFF

**Description:** Expanded instruction of American Sign Language receptive and expressive activities, sign vocabulary, grammatical structure, receptive and expressive finger spelling, narrative skills, cultural behaviors, and aspects of deaf culture. Abstract and conversational approach. (SP-ASL 1702 or instructor approval)

**ASL 3704 American Sign Language IV**

5 credit(s); prereq 3703 with final grade of at least [S or C-] or instr consent ;

**Instructor:** STAFF

**Description:** Increases the emphasis on more abstract and challenging conversational and narrative range. Includes receptive and expressive readiness activities, sign vocabulary, grammatical structure, receptive and expressive finger spelling, various aspects of deaf culture and behavioral rules. (SP-ASL 1703 or instructor approval)

**ASL 3705 Cultural Perspectives of Deafness**

3 credit(s); Meets CLE req of Cultural Diversity Theme;

**Instructor:** STAFF

**Description:** Introduction to the deaf community as a linguistic and cultural minority group. The role of deaf people in the larger society, political activism, laws, access to information, educational philosophies and methods, and communication systems.
“migrant,” “citizen,” refugee,” “exile,” “undocumented,” “illegal,” “asylum seeker,” etc to understand how and to whom they are or are not applied. We ask how social processes such as war, work, or sexual encounters to whom these categories are applied. The course focuses on a number of specific historical migrations. These migrations include, but are not limited to, the imperial voyage, Chinese migration and exclusion, the fortification of U.S. borders, Dakota migrations, and contemporary tourism.

Grading: 20% mid exam, 25% final exam, 40% reflection paper, 15% class participation.

AMST 3113W America's Diverse Cultures
3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive;
Instructor: Vidal, Erica Danielle
Description: Diverse cultural (racial, ethnic, class) groups in America. Institutions/processes that shape their relations and create domination, resistance, hybridity, nationalism, racism, alliance. Specific content may vary. Recent topics have included: American Film Violence and Issues of Identity (historical documents that illuminate the popular values of particular American cultural contexts), Growing up American--The Social and Cultural Politics of American Childhood, Identity Politics and the Politics of Identity (relationships between identity and political organizing), and Multiculturalism Revisited through the Space of Asian America.
Style: To be determined by instructor
Grading: To be determined by instructor

AMST 3114 America in International Perspective
3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of International Perspect Theme;
Instructor: Pierce, Jennifer L
Description: Why did people from different regions come to the United States and how does that influence their experience here? What are their hopes, dreams, and realities? What does it mean to become “American” and search for identity and place in our current social, political, and economic climate? This course takes post-1965 immigration as a point of departure to consider the experiences of recent immigrants to the United States from several different regions of the world and uses this most recent wave of immigration to the U.S. as a lens for looking at America in international perspective. We begin by considering the impact of globalization in the U.S. and around the world, with particular attention to the flows of people and electronic images that cross national borders. In the next section, we examine the experiences of recent migrants from Southeast Asia, the Caribbean, and Mexico. And finally, we consider relevant policy questions-many of them actively being debated in the current election cycle-- such as the meanings of citizenship, cultural democracy, the rights of non-citizens, and the responsibilities of host states to them. For interested students, there is also a service learning option that makes it possible to take the course for four credits rather than three.
Style: 60% Lecture, 20% Discussion. Film
Grading: 35% mid exam, 35% final exam, 30% reports/papers.
Exam Format: essay short answer

AMST 3253W American Popular Culture and Politics: 1940 to the Present
4 credit(s); Meets CLE req of Citizenship/Publi Ethics Theme; meets CLE req of Historical Perspective Core; meets CLE req of Writing Intensive;
Instructor: Castellanos, Bianet
Description: Student may contact the instructor or department for information.

AMST 3920 Topics in American Studies
3 credit(s), max credits 6;
Instructor: Katz, Judith
Description: Examine the mogul system, watch films you’ve never heard of and some you know very well. Beginning with a glimpse at European and Yiddish films from the beginning of the last century, we will explore the mogul system in Hollywood; the star system, and discuss the images of Jews in mainstream and independent film as well as the people responsible for the manufacture of those images. Readings include An Empire of Their Own by Neal Gabler and assorted articles.
Style: 5% Lecture, 70% Film/Video, 20% Discussion.
Grading: 75% reports/papers, 25% class participation.

AMST 3920 Topics in American Studies
3 credit(s), max credits 6;
Instructor: Noble, David W
Description: Why, in contrast to Canada and the countries of Western Europe, did half the people in the United States in 2005 reject the idea of evolution and want creationism taught in the public schools? Why do so many more people in the United States than in Canada or in Western European nations reject abortion and oppose gay marriage? In this course we will look to the 1940s and 1950s for the origins of these bitter current debates. In particular, we will explore how the national government’s adoption of anti-segregation and civil rights policies led to the creation of new alliances between Southern conservatives and conservatives in other regions. These alliances intensified in the 1960s in response to the strong anti-war movement of that decade and the movements for women’s rights and rights for gays. In this course we will also examine how the shifting balance of political power between liberals and conservatives in this period, as a consequence of new alliances, resulted in a debate where religious values have been made central to American national identity. We will identify what groups are most likely to be part of the conservative and the liberal coalitions, taking religion, region, class, race, ethnicity, and gender into consideration, and study the methods characteristic of the various coalitions.
Style: 67% Lecture, 33% Discussion.
Grading: 75% reports/papers, 25% class participation.

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

AMST 4962W Second Proseminar in American Studies
3 credit(s); prereq AmSt sr or instr consent ; Meets CLE req of Writing Intensive;
Instructor: May, Lary L
Description: In this the second proseminar students: 1) focus on the problems related to representative theme, figure, or period, and 2) research and write their senior thesis. American Studies majors engage in discussions and written exercises that demonstrate understanding of the discipline’s subject matter, modes of inquiry, and particular insight into the human experience. A related goal of the proseminars is to provide a context in which students can engage in freedom of inquiry and speech and a vigorous exchange of ideas. Respect for different beliefs and points of view, set against a background of academic civility, is essential to our seminars. The aim of writing and debate is to strengthen the student’s competence in reading, writing, and speaking with clarity. The seminars also encourage critical thinking and openness to new ideas, combined with intellectual independence and curiosity about the worlds in which we all live. The proseminars thereby expose students to an appreciation of the complexities of knowledge and the capacity to gain new perspectives about one’s own life through the study of other groups and peoples. The second proseminar provides the classroom setting in which students develop a plan for researching and producing a project that helps define each student’s academic interests. Finally, the writing of the senior paper comes as the culmination of the seminars.
Style: 10% Lecture. class projects (writing exercises for the research paper)
Grading: 30% class participation, 70% other evaluation.
research paper

AMST 8202 Theoretical Foundations and Current Practice in American Studies

3 credit(s); prereq grad AmSt major or instr consent or dept consent ;
Instructor: Ferguson,Roderick A
Description: Student may contact the instructor or department for information.

AMST 8231 Cultural Fallout: The Cold War and Its Legacy,
Readings 3 credit(s);
Instructor: May,Elaine Tyler
Description: Student may contact the instructor or department for information.

AMST 8250 Popular Culture and Politics in the 20th Century: Research Strategies
3 credit(s); prereq 8239 or instr consent ;
Instructor: May,Lary L
Description: Student may contact the instructor or department for information.

AMST 8401 Practicum in American Studies
S-N only, 3 credit(s); prereq instr consent ;
Instructor: Pierce,Jennifer L
Description: Student may contact the instructor or department for information.

AMST 8920 Topics in American Studies
3 credit(s), max credits 9, 3 repeats allowed;  
Instructor: Castellanos,Bianet
Description: Student may contact the instructor or department for information.

Anatomy
6-125 Jackson Hall

ANAT 3601 Principles of Human Anatomy
3 credit(s); prereq [BIOL 1009 or equiv], at least soph; 
[Concurrent registration is required (or allowed) in 3602 or 
Concurrent registration is required (or allowed) in 3612] recommended;
Instructor: Weinhaus PhD,Anthony James
Description: Anatomical relationships. Function based upon form. Clinical applications. Gross (macroscopic) anatomy, histology (microscopic anatomy). Neuroanatomy (nervous system), embryology (developmental anatomy). This course has been renamed from ANAT 3301. (It is advised that students take Principles of Human Anatomy laboratory with this lecture). Prerequisites are: Concurrent registration or previous completion of ANAT 3002. ANAT 3601 and 3612 are identical. (This lab is designed to supplement the Lecture course (Principles of Human Anatomy). Prerequisites are: Concurrent registration or previous completion of ANAT 3601/ 3611 or ANAT 3001/ 3301; AND at least sophomore status, and completion of Biol 1001/ 1002 or 1009 (or equivalent).
Style: 100% Lecture. 
Grading: 8% quizzes, 92% additional semester exams.

ANAT 3602 Principles of Human Anatomy Laboratory
2 credit(s); prereq 3601 or 3301 or INMD 3001 or 3301 or Concurrent registration is required (or allowed) in 3601 or 
Concurrent registration is required (or allowed) in 3611 To 
register for lab concurrently with lecture, students must successfully register for lecture first. credit will not be granted if credit received for: Anat 3002/Anat 3302/Anat 3602/INMD 3002/INMD 3302;
Instructor: Weinhaus PhD,Anthony James
Description: Cadaveric examination of Human Anatomy, including: Gross (macroscopic anatomy), histology (microscopic anatomy), Neuroanatomy (nervous system), and embryology (developmental anatomy). This course has been renamed from ANAT 3301. This course is identical to ANAT 3601. ANAT 3602 and 3612 are identical. (This lab is designed to supplement the Lecture course (Principles of Human Anatomy). Prerequisites are: Concurrent registration or previous completion of ANAT 3601/ 3611 or ANAT 3001/ 3301; AND at least sophomore status: AND completion of Biol 1001/ 1002 or 1009 (or equivalent).
Style: 100% Laboratory. 
Grading: 100% additional semester exams. A total of 12% extra-credit is available

ANAT 3611 Principles of Human Anatomy
3 credit(s); prereq [BIOL 1009 or equiv], at least soph; 
[Concurrent registration is required (or allowed) in 3602 or 
Concurrent registration is required (or allowed) in 3612] recommended;
Instructor: Weinhaus PhD,Anthony James
Description: Anatomical relationships. Function based upon form. Clinical applications. Gross (macroscopic anatomy, histology (microscopic anatomy), Neuroanatomy (nervous system), embryology (developmental anatomy). This course has been renamed from ANAT 3301. This course is identical to ANAT 3601. (It is advised that students take Principles of Human Anatomy laboratory with this lecture). Prerequisites are: at least sophomore status, and completion of Biol 1001/ 1002 or 1009 (or equivalent).
Style: 100% Lecture. 
Grading: 8% quizzes, 92% additional semester exams.

ANAT 3612 Principles of Human Anatomy Laboratory
2 credit(s); prereq 3001 or 3301 or INMD 3001 or 3301 or Concurrent registration is required (or allowed) in 3601 or 
Concurrent registration is required (or allowed) in 3611 To 
register for lab concurrently with lecture, students must successfully register for lecture first. credit will not be granted if credit received for: Anat 3002/Anat 3302/Anat 3602/INMD 3002/INMD 3302;
Instructor: Weinhaus PhD,Anthony James
Description: Cadaveric examination of Human Anatomy, including: Gross (macroscopic anatomy), histology (microscopic anatomy), Neuroanatomy (nervous system), and embryology (developmental anatomy). This course has been renamed from ANAT 3302. ANAT 3602 and 3612 are identical. (This lab is designed to supplement the Lecture course (Principles of Human Anatomy). Prerequisites are: Concurrent registration or previous completion of ANAT 3601/ 3611 or ANAT 3001/ 3301; AND at least sophomore status: AND completion of Biol 1001/ 1002 or 1009 (or equivalent).
Style: 100% Laboratory. 
Grading: 100% additional semester exams. A total of 12% extra-credit is available

ANAT 4900 Directed Studies in Anatomy
S-N only, 1-6 credit(s), max credits 18, 3 repeats 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.

Animal Science
305 Haecker Hall

ANSC 1021 Avian Sampler
1 credit(s);
Instructor: Jacob,Jacquie
Description: The Avian Sampler is an introductory class designed to teach students different aspects of avian biology. The course will discuss different environmental and conservation practices along with wildlife rehabilitation programs that are important for maintaining healthy populations of wild birds in Minnesota. The care, management and health considerations of many types of avian species such as domestic poultry, raptors, ratites, and companion birds will be discussed. 
Style: 80% Lecture, 20% Discussion. in-class lecture assignments

This information is accurate as of 6/9/2008 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.
ANSC 1101 Introductory Animal Science
4 credit(s);
Instructor: Seykora, Anthony James
Description: This course is an introduction to animal science with emphasis on genetics, physiology and nutrition. Production systems relative to the horse, dairy, sheep, poultry, swine and beef industries are introduced. Additional topics include man’s relationship to animals, current issues and future perspectives of animal agriculture.
Style: 70% Lecture, 10% Discussion, 20% Laboratory.
Grading: 40% mid exam, 20% final exam, 10% laboratory evaluation, 30% problem solving.
Exam Format: Multiple choice and short answer.

ANSC 1403 Companion Animal Nutrition and Care
3 credit(s);
Instructor: Stern, Marshall D
Description: This course is designed for individuals having no prior training with animals or nutrition, but have an interest in caring for and understanding the contemporary importance of companion animals. Emphasis will be on nutrition of healthy animals and the various factors that play a role in feeding an animal adequately, including animal behavior, environmental conditions, food type and availability. The course will emphasize basic principles of nutrition and one of the goals will be to make the student aware of their own nutrition, as these principles apply to humans also. Other course goals will be to have the student be a responsible pet owner and enhance their appreciation of companion animals. The target audience of this course is all undergraduate students interested in companion animals and their nutrition and care. The course will focus on companion animals, but not exclusively dogs and cats.
Style: 100% Lecture.
Grading: 100% other evaluation. Each of the 3 exams worth 33% each.

ANSC 2012 Livestock and Carcass Evaluation
3 credit(s);
Instructor: Rozeboom, Kyle James
Description: Student may contact the instructor or department for information.

ANSC 2014 Poultry Judging
2 credit(s);
Instructor: Jacob, Jacque
Description: Student may contact the instructor or department for information.

ANSC 2211 Biometrics for Livestock
3 credit(s); prereq Math 1031 or higher; Credit will not be granted if credit has been received for: STAT 3011; Meets CLE req of Mathematical Thinking Core;
Instructor: Hansen, Leslie Bennett
Description: Statistics with emphasis on biological data, especially evaluation of livestock. Topics will include descriptive statistics, probability, correlation, regression, analysis of variance, and interpretation of results of experiments. Course is geared to the casual user and student of livestock research information. Emphasis will be on gaining an appreciation for statistical analysis of theoretical data, and its contribution to improved livestock well-being and management. Participation is classroom discussion will be encouraged.
Style: 50% Lecture, 50% Discussion.
Grading: 25% mid exam, 25% final exam, 50% problem solving.

ANSC 3007 Equine Nutrition
3 credit(s); prereq 2401;
Instructor: Hathaway, Marcia R
Description: This course will include the basic principles of nutrition with emphasis on the unique aspects of equine nutrition. Emphasis will be on nutritional needs of healthy animals as well as the various factors that play a role in feeding an animal adequately. These factors include animal behavior, growth and development, physiological status, environmental conditions, food type and availability. The course will focus on developing an understanding of how the physiology of the horse’s gastrointestinal tract, the utilization of feedstuffs and the horse’s nutritional requirements interrelate. Students will learn how to formulate balanced rations and avoid nutritional related ailments. Students will learn to seek and interpret information so they can make decisions on important issues such as pasture management, forage selection and the use of dietary feed additives and enhancers. Course Objectives: As a result of taking this course, students will be able to: 1. develop or enhance their appreciation of the nutritional requirements of the horse. 2. recognize the rationale behind the change in nutritional requirements of horses at different stages of development and under different physiological demands change. 3. become familiar with the physiology of the equine gastrointestinal tract. 4. understand the basic management skills that are required for the proper feeding of horses to avoid nutritional based ailments.
Style: 75% Lecture, 25% Discussion.
Grading: 50% mid exam, 20% final exam, 10% laboratory evaluation, 20% problem solving.
Exam Format: short answer

ANSC 3141 Advanced Dairy Judging
1 credit(s); prereq 2011 or instr consent;
Instructor: Hansen, Leslie Bennett
Description: Especially for students interested in competing with the intercollegiate dairy cattle judging team. A weekly class of four dairy cows will be selected for which oral reasons will be prepared. The one set of reasons each week will be presented numerous times to improve technique.
Style: 100% Discussion.
Grading: 100% in-class presentation.

ANSC 3203W Environment, Global Food Production, and the Citizen
3 credit(s); Credit will not be granted if credit has been received for: AGRO 3203W; Meets CLE req of Citizenship/Public Ethics Theme; meets CLE req of Environment Theme; meets CLE req of Writing Intensive;
Instructor: Simmons, Steve Robert
Description: Sustainable production of food is crucial to survival. Different agricultural ecosystems have developed around the world that are influenced by and have an impact on the environment. Course examines how the environment constrains the capacity to produce food and the impact of agriculture on the environment. Topics include ecological properties of agricultural ecosystems, issues of biodiversity, natural resource conservation, pollution, water and waste management. The course utilizes interactive television to provide a media experience and features teaching methods that will allow students to resolve actual dilemmas. Students with no prior exposure to agriculture are encouraged to enroll. An introductory knowledge of biological concepts would be helpful.
Style: 45% Lecture, 45% Discussion. decision cases
Grading: 20% mid exam, 20% final exam, 40% reports/papers, 20% class participation.
Exam Format: short essay 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 at an off-campus laboratory setting. Proper techniques of AI and semen handling, and criteria for selection of bulls.

ANSC 3501 Farm Animal Environment
3 credit(s); prereq [2301, jr] or instr consent;
Instructor: El Halawani PhD, Mohamed E
Description: Student may contact the instructor or department for information.

ANSC 3509 Animal Biotechnology
ANSC 3511 Animal Growth and Development
3 credit(s); prereq College-level biology course;
Instructor: White,Michael Ernest
Description: Principles of animal growth. Interaction of nutrition, hormones, exercise, heredity, and disease in regulating growth.

ANSC 3801 Livestock Merchandising
3 credit(s); prereq Jr or sr or instr consent;
Instructor: Rozeboom,Kyle James
Description: Student may contact the instructor for department for information.

ANSC 4011 Dairy Cattle Breeding
3 credit(s); prereq 3221;
Instructor: Hansen,Leslie Bennett
Description: This course is very applied in nature. Some problem solving assignments may be hypothetical, but in most cases, real circumstances are discussed. Much class time is devoted to discussion. The course has been popular with international students in the MAST program. Because dairy cattle genetics from the US has had a major impact on dairy cattle worldwide, the international flavor of discussions is very appropriate. There is some straight lecture, but this is usually sprinkled with questions that are followed by discussion. The instructor attempts to have students address questions that are raised and jointly arrive at a solution. Quantitative genetic principles are the primary focus, with rates of genetic improvement and systems of breeding emphasized.
Style: 35% Lecture, 40% Discussion, 25% Laboratory.
Grading: 20% mid exam, 20% final exam, 30% special projects, 30% problem solving.
Exam Format: Short answer, essay

ANSC 4096 Professional Experience Program: Internship
S-N only, 1-3 credit(s), max credits 6, 1 repeat allowed; prereq COAFES undergrad, instr consent, complete internship contract available in COAFES Career Services before enrolling; UC only;
Instructor: Foster,Douglas N
Description: Student may contact the instructor for department for information.

ANSC 4096 Professional Experience Program: Internship
S-N only, 1-3 credit(s), max credits 6, 1 repeat allowed; prereq COAFES undergrad, instr consent, complete internship contract available in COAFES Career Services before enrolling; UC only;
Instructor: Shurson,Gerald C
Description: Student may contact the instructor for department for information.

ANSC 4096 Professional Experience Program: Internship
S-N only, 1-3 credit(s), max credits 6, 1 repeat allowed; prereq COAFES undergrad, instr consent, complete internship contract available in COAFES Career Services before enrolling; UC only;
Instructor: Rozeboom,Kyle James
Description: Student may contact the instructor for department for information.

ANSC 4096 Professional Experience Program: Internship
S-N only, 1-3 credit(s), max credits 6, 1 repeat allowed; prereq COAFES undergrad, instr consent, complete internship contract available in COAFES Career Services before enrolling; UC only;
Instructor: Hathaway,Marcia R
Description: Student may contact the instructor for department for information.

ANSC 4096 Professional Experience Program: Internship
S-N only, 1-3 credit(s), max credits 6, 1 repeat allowed; prereq COAFES undergrad, instr consent, complete internship contract available in COAFES Career Services before enrolling; UC only;
Instructor: Crooker,Brian A
Description: Student may contact the instructor for department for information.

ANSC 4096 Professional Experience Program: Internship
S-N only, 1-3 credit(s), max credits 6, 1 repeat allowed; prereq COAFES undergrad, instr consent, complete internship contract available in COAFES Career Services before enrolling; UC only;
Instructor: Stern,Marshall D
Description: Student may contact the instructor for department for information.

ANSC 4096 Professional Experience Program: Internship
S-N only, 1-3 credit(s), max credits 6, 1 repeat allowed; prereq COAFES undergrad, instr consent, complete internship contract available in COAFES Career Services before enrolling; UC only;
Instructor: Foster,Douglas N
Description: Student may contact the instructor for department for information.

ANSC 4096 Professional Experience Program: Internship
S-N only, 1-3 credit(s), max credits 6, 1 repeat allowed; prereq COAFES undergrad, instr consent, complete internship contract available in COAFES Career Services before enrolling; UC only;
Instructor: Ponce de Leon,F. Abel
Description: Student may contact the instructor for department for information.
**ANSC 4096 Professional Experience Program: Internship**
S-N only, 1-3 credit(s), max credits 6, 1 repeat allowed; prereq COAFES undergrad, instr consent, complete internship contract available in COAFES Career Services before enrolling; UC only; Instructor: Dayton, William R

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

**ANSC 4096 Professional Experience Program: Internship**
S-N only, 1-3 credit(s), max credits 6, 1 repeat allowed; prereq COAFES undergrad, instr consent, complete internship contract available in COAFES Career Services before enrolling; UC only; Instructor: Wheaton, Jonathan E

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

**ANSC 4096 Professional Experience Program: Internship**
S-N only, 1-3 credit(s), max credits 6, 1 repeat allowed; prereq COAFES undergrad, instr consent, complete internship contract available in COAFES Career Services before enrolling; UC only; Instructor: El Halawani, Mohamed E

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

**ANSC 4099 Special Workshop in Animal Science**
1-4 credit(s), max credits 24, 6 repeats allowed; Instructor: Reneau, Jeffrey Kimball

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

**ANSC 4099 Special Workshop in Animal Science**
1-4 credit(s), max credits 24, 6 repeats allowed; Instructor: Seykora, Anthony James

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

**ANSC 4403 Ruminant Nutrition**
3 credit(s); prereq 2401; Instructor: Stern, Marshall D

**Description:** This course involves lectures and laboratory to focus on nutrient requirements of ruminants, physiology of digestion in ruminants, nutrient content of feedstuffs, primarily forages; energy utilization, protein and nonprotein nitrogen utilization; nutritional disorders; and formulation of adequate rations. Student objectives are to: 1) understand the processes of digestion and the utilization of nutrients by ruminants, 2) understand the systems used to describe nutrient requirements of ruminants, 3) be able to formulate adequate rations for maintenance and production, and 4) have a general knowledge of nutritional disorders and deficiencies. The target audience of this class is undergraduate/graduate students with an interest in nutrition of the ruminant species.

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

**Grading:** 40% laboratory evaluation, 60% other evaluation.

**Exam Format:** fill-in-the-blanks, definitions, true/false, matching

**ANSC 4601 Pork Production Systems Management**
4 credit(s); prereq Concurrent registration is required (or allowed) in 4611 4611; Instructor: Shurson, Gerald C

**Description:** This course is focused on the management of biology and business of pork production systems. This course is a web-assisted course where weekly assignments, course materials and communications will be posted at: <a href="http://webCT.umn.edu">http://webCT.umn.edu/</a>

**Style:** 65% Lecture, 10% Discussion. videotapes and in-class assignments

**Grading:** 50% mid exam.

**Exam Format:** combination of multiple choice, true/false, essay, matching, short answer

**ANSC 4602 Sheep Production Systems Management**
4 credit(s); prereq 2401; 3221 recommended; Instructor: Rozeboom, Kyle James

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

**ANSC 4604 Dairy Production Systems Management**
4 credit(s); prereq Concurrent registration is required (or allowed) in 4614 4614; Instructor: Reneau, Jeffrey Kimball

**Description:** This course is intended to be a "capstone" course in dairy herd management. The course is designed to build problem solving skills in a real-world setting. Most of the class time is spent in decision care discussions. Laboratories will be spent learning practical dairy management skills. For example, milking technique analysis, body condition scoring, etc. Field trips will be taken to visit progressive area dairies. This is an ideal course for any student who anticipates operating a dairy or becoming a dairy herd consultant. The class materials consist of work sheets and reference materials in the areas of dairy farm financial management, nutrition and forages, reproduction, milk quality and mastitis, genetics and young stock management and dairy housing. Students will be assigned to teams, and will visit a "real dairy", at which they are expected to collect data, samples, study records, etc. and write an analysis of the heard's strengths and weaknesses and make recommendations to improve herd profitability.

**Style:** 25% Lecture, 50% Discussion, 25% Laboratory.

**Grading:** 40% mid exam, 40% final exam, 20% class participation.

**Exam Format:** essay

**ANSC 4611 Advanced Pork Production Systems Management**
2 credit(s); prereq 4601; Instructor: Shurson, Gerald C

**Description:** This course is designed for students who have considerable interest and experience in pork production systems. Students enrolled in this course should have successfully completed AnSc 4601 concurrently. Advanced Pork Production Systems Management will focus on concepts and application of new emerging technologies in the pork industry, pork chain management, and experience developing tools to improve operational systems management.

**Style:** 20% Lecture. student presentations and in-class assignments

**Grading:** 50% reports/papers, 50% class participation.

**ANSC 4614 Advanced Dairy Production Systems Management**
2 credit(s); prereq 4604; Instructor: Reneau, Jeffrey Kimball

**Description:** This class is a continuation of 4604 (see description of 4604). The intent of this class is to provide dairy management students with additional problem solving skill and experience.

**ANSC 8131 Molecular Biology Techniques**
3 credit(s); prereq BioC 4332, Biol 4003; Credit will not be granted if credit has been received for: CMB 8335; Instructor: Foster, Douglas N

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

**ANSC 8211 Animal Growth and Development**
3 credit(s); prereq instr consent; Instructor: Dayton, William R
ANTH 1001 Human Evolution  
4 credit(s); Meets CLE req of Biological Sciences/Lab Core;  
Instructor: Bangs MA, Eric William  
Description: Students may contact the instructor or department for information.

ANTH 1001 Human Evolution  
4 credit(s); Meets CLE req of Biological Sciences/Lab Core;  
Instructor: Tappen, Martha  
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 - the same process that gives the butterfly its wings, the horse its speed, and the worm its wiggle - 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 organism (primarily monkeys and apes). In the second half of the course we will attempt to 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?  
Style: 50% Lecture, 50% Laboratory.  
Grading: 45% mid exam, 20% final exam, 5% reports/papers, 30% laboratory evaluation.  
Exam Format: Multiple choice

ANTH 1001H Honors: Human Evolution  
4 credit(s); prereq honors; Meets CLE req of Biological Sciences/Lab Core;  
Instructor: Tappen, Martha  
Description: Students may contact the instructor or department for information.

ANTH 1003W Understanding Cultures  
4 credit(s); Meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; 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 3003 Cultural Anthropology  
3 credit(s); Credit will not be granted if credit has been received for: GLOS 3003;  
Instructor: Song, Hoon  
Description: Students may contact the instructor or department for information.

ANTH 3009 Rise of Civilization  
3 credit(s); Meets CLE req of International Perspect Theme; meets CLE req of Social Science Core;  
Instructor: Wells, Peter S  
Description: Examines the development of complex societies, from early hunter-gatherer groups through settled agricultural villages, to the rise of towns and cities. Comparison of processes of change in ten regions of the world. Intended for all undergraduates.  
Style: 95% Lecture, 5% Discussion.  
Grading: 45% mid exam, 35% final exam, 20% reports/papers.  
Exam Format: multiple choice, essay

ANTH 3015W Biology, Evolution, and cultural Development of Language  
3 credit(s); Credit will not be granted if credit has been received for: ANTH 5015W; Meets CLE req of Writing Intensive;  
Instructor: Beeman, William O  
Description: Language is the most human form of behavior, and the investigation of the ways language and culture interact is one of the most important aspects of the study of human beings. The most fascinating problem in this study is how language itself may have evolved as the result of the interaction between biological and cultural development of the human species. In this course we will consider the development of the brain, the relationship between Early Humans, Neanderthals and Modern Humans, and such questions as the role of gossip and music in the development of language. There will be two written exercises and a final examination. The exercises will ask for responses to one of a range of questions posed by the instructor. The first will cover the biological bases for language. The second will cover evolution and the questions raised by comparing animal and human communicative behavior. The final 10-15 page research paper (14-21 pages for students enrolled in 5015) will cover a topic of specific interest relating to the subject of language evolution and the controversies surrounding it, worked out in consultation with the course instructor. Students enrolled in 3015 may restrict their research to course resources. Students enrolled in 5015 will be expected to go beyond course readings in their research.  
Style: 80% Lecture, 20% Film/Video, 10% Discussion, 10% Guest Speakers.  
Grading: 50% mid exam, 40% reports/papers, 10% class participation. Short papers--20% each, term paper 50%  
Exam Format: No in-class exams

ANTH 3022W Anthropology of Dreaming and Myth  
A-F only, 3 credit(s); Meets CLE req of Writing Intensive;  
Instructor: Ingham, John M  
Description: This course offers an overview of anthropological research on dreaming and myth. It explores universal features of dreaming and myth as well as how they vary in different cultural settings. We see how dreams and myths use symbolism and other figurative devices to convey meaning, and we consider approaches to understanding their functions and organization. We also see how dreams appear in myths and how myths influence dreams. Dreams and myths, in turn, allow us to pose questions about the interrelation between individual personality and culture, and about the role of fantasy in human life.  
Style: 70% Lecture, 30% Discussion.  
Grading: 95% mid exam, 25% final exam, 45% reports/papers.  
Exam Format: essay and short answer

ANTH 3029 Archaeology of Native Americans  
3 credit(s); Meets CLE req of Cultural Diversity Theme;  
Instructor: Gibbon, Guy E  
Description: Archaeology of Native Americans provide an introduction to the pre-contact archaeology of North America (north of Mexico). Beginning with a discussion of the first peopling of North America, it then adopts a culture approach in which individual areas like the Great Plains and Eastern Woodlands are a focus for several weeks. Films are shown throughout the course to illustrate the archaeology of individual culture areas. The standard text is Brian Fagan’s “Ancient North America” (1995). Separate texts will be used for some culture
areas. Papers (ca. 20 pages) will be on topics of individual interest. Two general subject areas are stressed in the course: (1) The archaeological context of individual areas (types of cultures, projectile points, ceramics, etc.); and, (2) the general patterns of change throughout the prehistory of North America. Style: 85% Lecture, 5% Discussion, 5% Laboratory. Grading: 35% mid exam, 45% final exam, 20% reports/papers. Exam Format: Essay, concept identification.

ANTH 3242 Hero, Savage, or Equal? Representations of NonWestern Peoples in the Movies

A-F only, 3 credit(s);
Instructor: Lipset,David M
Description: Student may contact the instructor or department for information.

ANTH 3980 Topics in Anthropology: Cultural Heritage

3 credit(s), max credits 6;
Instructor: Anfinson,Scott F
Description: Student may contact the instructor or department for information.

ANTH 3980 Topics in Anthropology: American and Its Others

3 credit(s), max credits 6;
Instructor: Raheja,Gloria Goodwin
Description: Student may contact the instructor or department for information.

ANTH 3980 Topics in Anthropology: Minnesota Archaeology

3 credit(s), max credits 6;
Instructor: Gibbon,Guy E
Description: Student may contact the instructor or department for information.

ANTH 4001 Advanced Method and Theory in Archaeology

3 credit(s); prereq 1001 or 3001;
Instructor: Monnier,Gilliane F
Description: Student may contact the instructor or department for information.

ANTH 4007 Neanderthals: Biology and Culture of Humanity's Nearest Relative

3 credit(s); Meets CLE req of Writing Intensive;
Instructor: Beeman,William O
Description: Language is the most human form of behavior, and the investigation of the ways language and culture interact is one of the most important aspects of the study of human beings. The most fascinating problem in this study is how language itself may have evolved as the result of the interaction between biological and cultural development of the human species. In this course we will consider the development of the brain, the relationship between Early Humans, Neanderthals and Modern Humans, and such questions as the role of gossip and music in the development of language. There will be two written exercises and a final examination. The exercises will ask for responses to one of a range of questions posed by the instructor. The first will cover the biological bases for language. The second will cover evolution and the questions raised by comparing animal and human communicative behavior. The final 10-15 page research paper (14-21 pages for students enrolled in 5015) will cover a topic of specific interest relating to the subject of language evolution and the controversies surrounding it, worked out in consultation with the course instructor. Students enrolled in 3015 may restrict their research to course resources. Students enrolled in 5015 will be expected to go beyond course readings in their research.

ANTH 5015W Biology, Evolution, and Cultural Development of Language

Credit will not be granted if credit has been received for: ANTH 3015W; Meets CLE req of Writing Intensive;
Instructor: Beeman,William O
Description: Language is the most human form of behavior, and the investigation of the ways language and culture interact is one of the most important aspects of the study of human beings. The most fascinating problem in this study is how language itself may have evolved as the result of the interaction between biological and cultural development of the human species. In this course we will consider the development of the brain, the relationship between Early Humans, Neanderthals and Modern Humans, and such questions as the role of gossip and music in the development of language. There will be two written exercises and a final examination. The exercises will ask for responses to one of a range of questions posed by the instructor. The first will cover the biological bases for language. The second will cover evolution and the questions raised by comparing animal and human communicative behavior. The final 10-15 page research paper (14-21 pages for students enrolled in 5015) will cover a topic of specific interest relating to the subject of language evolution and the controversies surrounding it, worked out in consultation with the course instructor. Students enrolled in 3015 may restrict their research to course resources. Students enrolled in 5015 will be expected to go beyond course readings in their research.

ANTH 5029 Philosophical Anthropology

This information is accurate as of 6/9/2008 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.
ANTH 5043 Colonialism and Culture
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: GLOS 5643; Instructor: Raheja,Gloria Goodwin
Description: This course focuses on the making of "culture" as a colonial and anthropological object of knowledge. It examines the relationship between colonial knowledge and the formation of academic disciplines (especially anthropology) on the one hand, and colonial and postcolonial transformations of colony, nation, and metropole on the other.
Style: 50% Lecture, 50% Discussion.

ANTH 5269 Analysis of Stone Tool Technology
A-F only, 4 credit(s); prereq 1001 or 3001 or instr consent; Instructor: Tostevin,Gilbert B
Description: An archaeologist once stated &quote;Love is fickle but stone tools are forever.&quot; This course takes this principle to heart in order to teach serious undergraduates and beginning graduate students how archaeologists can learn what it means to be human through the study of our ancestors' stone tools. From a scientific point of view, as the vast majority of human existence has been spent using stone tools as the primary medium for the interaction between humans and the environment, understanding the causes of change in stone tool variation through time is fundamental to understanding the human past. The goals of this course include 1) a comprehensive survey of known stone tool making processes (known as flintknapping), 2) a critical examination of different traditions of studying stone tools among archaeologists around the world, and 3) practical experience with analyzing an entire stone tool collection from an experimental archaeological site in order to reconstruct the behaviors, from procurement of raw stone to the discard of the exhausted tools, which produced the site and its collection. This course also provides students with hands-on experience in the practice of making stone tools for analysis. This is a practical laboratory class: the successful completion of this course will allow you to perform the tasks required of archaeologists currently working in the Cultural Resource Management industry. Space is limited so please email toste003@umn.edu to enroll.
Style: 20% Lecture, 50% Laboratory. hands-on flintknapping; 5% films
Grading: 45% other evaluation. laboratory reports; 30% final paper; 15% two in-class quizzes; 10% discussion participation

ANTH 5446 Archaeology of Representation as Communication
A-F only, 3 credit(s); Instructor: Wells,Peter S
Description: The seminar examines uses of representations - paintings, sculptures, drawings, photographs - as means of communication, from the earliest representations of 30,000 years ago to the present day.
Style: 80% Discussion, 20% Student Presentation.
Grading: 50% reports/papers, 10% special projects, 30% in-class presentation, 10% class participation.

ANTH 5980 Topics in Anthropology
3 credit(s), max credits 6; Instructor: McLean,Stuart J
Description: Student may contact the instructor or department for information.

ANTH 5990 Topics in Archaeology
A-F only, 3 credit(s), max credits 9, 3 repeats allowed; prereq instr consent; Instructor: Anfinson,Scott F
Description: Student may contact the instructor or department for information.

ANTH 5990 Topics in Archaeology: Minnesota Archaeology
A-F only, 3 credit(s), max credits 9, 3 repeats allowed; prereq instr consent; Instructor: Gibbon,Guy E
Description: This section of Anth 5980 is an archaeological lab class that involves the preparation of an archaeological site report using excavated artifacts from the Upper Rice Lake site in Clearwater County, Minnesota. The purpose of the class is to learn how to identify pottery, stone artifacts, and animal bones remains from a Midwest archaeological site. Grades are based on how well you do in preparing your section of the report and on general participation. The class is limited to 10 students, so let me know if you plan to take the course and I'll notify the Anthropology Office. First come ....

ANTH 8005 Linguistic Anthropology
A-F only, 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 ANTH 5521W. The course will have three short written essays (8-8 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 8510 Topics in Archaeology
3-9 credit(s), max credits 9, 3 repeats allowed; Instructor: Wells,Peter S
Description: Student may contact the instructor or department for information.

ABUS 3301 Introduction to Quality Management
A-F only, 3 credit(s); prereq introductory statistics; Instructor: Huchendort-Steven Craig
Description: 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.

ABUS 4022 Management in Organizations
A-F only, 3 credit(s); prereq 45 cr completed; Instructor: Haarklau,Evon A
Description: A course of study and application designed to give students a current understanding of the demands on today's managers that goes beyond the techniques and ideas traditionally taught in management courses. The focus on small to medium-sized organizations will allow students to apply management theory to every level of any organization, as well as to large-sized organizations and not-for-profits. Topics include managing in the "new workplace" and ever-changing global environment; organizational planning and decision making; organizing resources; leading and motivating people; and controlling and evaluating organizational activities.

ABUS 4023W Communicating for Results
A-F only, 3 credit(s); prereq 45 cr completed; Meets CLE req of Writing Intensive; Instructor: STAFF

This information is accurate as of 6/9/2008 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: Aspects of communication essential for being persuasive and influential. Organizing and presenting ideas effectively, strategies for audience analysis, choosing communication methods, making appropriate use of informal influence methods, and handling dissent. Processes for intercultural communication.

ABUS 4031 Accessing and Using Information Effectively
A-F only, 3 credit(s); prereq 45 cr completed;
Instructor: Swanson,Trisha Katherine
Description: Information resources available to businesses and how to use them. The course begins with conceptualization of the role of information in business operations, including information systems and data management. A typology of information is presented and applied in short case studies and exercises, including data-based, text-based, oral, written, and multimedia forms of information. Accessing external information for the firm is reviewed through experiences with library resources, such as information search services, CD-ROM, and periodicals. Accessing internal information for the firm is reviewed through experiences with desktop database system and electronic mail or computer conferencing. Requires computer and internet skills, and nearly daily access to the World Wide Web, word processing, and printer. Requires visits to a library in your area. No restrictions for financial aid.

ABUS 4101 Cost Accounting, Analysis, and Control in Organizations
A-F only, 3 credit(s); prereq Financial accounting, 45 cr completed;
Instructor: STAFF
Description: Expands on student's lower division work in financial accounting. Emphasis is on using accounting data to make day-to-day management decisions such as: determining cost-volume-profit relationships, measuring various costs, evaluating capital budgets and the acceptability of investment projects, constructing profit plans, evaluating budget variances, and analyzing activity costing and standard costs.

ABUS 4104 Management and Human Resource Practices
A-F only, 3 credit(s); prereq 45 cr completed;
Instructor: STAFF
Description: Introduces students to a broad overview of human resource practices in organizations as well as basic responsibilities of front line managers. Emphasis is on providing day-to-day leadership including organizing work, motivating employees, and delegating, coordinating and achieving results. Human resource practices carried out at the front line include selection induction and training of new employees, employee appraisal, handling grievances and discipline.

ABUS 4321 Evaluating Performance Excellence in Organizations
S-N only, 3 credit(s); prereq Submit MNQA evaluator application;
Instructor: Lassiter,Brian S
Description: Systematic processes for leadership, quality improvement, and performance excellence. Analyze strengths and improvements using the Baldrige National Quality Award and the Minnesota Quality Award (MNQA) criteria. Students join 2007 MNQA Board of Evaluators and complete team evaluation of MN group seeking MN Quality Award; or approved independent project.

ABUS 4509 New Product Development
A-F only, 3 credit(s); prereq [(4103 or 4701 or Mktg 3001), at least 45 cr] or instr consent ;
Instructor: Flanders,Gordon R
Description: This course will explore how new consumer, industrial, and service products are planned and developed. It will examine idea generation, concept and buyer testing, pricing, sales and profit strategies, product positioning techniques, promotion, packaging and distribution considerations from a new product development perspective, using marketing case histories and student project work.

ABUS 4701 Introduction to Marketing
A-F only, 3 credit(s); prereq Acct 2050, Econ 1101, 45 cr completed;
Instructor: Aggarwal,Praveen
Description: Provides an introduction to marketing as the facilitation of exchanges that satisfy the needs of all parties. Emphasis is placed on the conceptual tools necessary for the creation of a sound marketing plan. Explains how marketing relates to other functional areas of business and the importance of an ethical, global view.

Applied Economics
231 Classroom Office Building

APEC 1102 Principles of Macroeconomics
3 credit(s); prereq 1101 or Econ 1101 no credit will be granted if credit has been received for: Econ 1102 or Econ 1105.; Credit will not be granted if credit has been received for: ECON 1102; Meets CLE req of International Perspect Theme; meets CLE req of Social Science Core;
Instructor: Parliament,Claudia A
Description: Economics, the study of choices made under conditions of scarcity, is divided into two major areas: micro and macro economics. This course, Principles of Macroeconomics, is concerned with the behavior of entire economies. The course will focus on the aggregate concepts of economic growth, gross domestic product, unemployment, and inflation. The course will also cover the role of the Federal Reserve Bank and the banking system in creating the money supply and influencing interest rates. Budget deficits and the national debt will be discussed. The strengths and weaknesses of using fiscal and/or monetary policy to influence economic growth and stability will be examined. Time permitting, exchange rates and trade deficits will be covered. The course will emphasize the application of macroeconomic concepts to current economic issues.
Style: 60% Lecture, 40% Discussion.
Grading: 30% mid exam, 25% final exam, 15% reports/papers, 15% quizzes, 15% problem solving.
Exam Format: multiple choice, short answer, graphs

APEC 1102H Honors: Principles of Macroeconomics
A-F only, 4 credit(s); prereq 1101 or 1101H or Econ 1101; Credit will not be granted if credit has been received for: APEC 1102; Meets CLE req of International Perspect Theme; meets CLE req of Social Science Core;
Instructor: Ritter,Joe
Description: Student may contact the instructor or department for information.

APEC 3001 Applied Microeconomics: Consumers, Producers, and Markets
4 credit(s); prereq [[1101 or Econ 1101], [Math 1142 or Math 1271]] or instr consent ; Credit will not be granted if credit has been received for: ECON 3101; Meets CLE req of Social Science Core;
Instructor: Carlin,Caroline S
Description: This is a course in intermediate microeconomic theory, focusing on both consumer and producer decisions. Starting from a foundation in the fundamental theory of supply and demand, we will learn about markets, pricing, investment, the effects of government regulations, and market failures. The course will be primarily lecture, but discussion will be generated through in-class exploration of problem solving. This course is the first in a sequence with ApEc3002 (Managerial Economics). The primary audience for this course is undergraduate students in Agriculture and Food Business Management and Applied Economics.
Style: 90% Lecture, 10% Discussion.
Grading: 40% mid exam, 25% final exam, 15% quizzes, 20% problem solving.
Exam Format: Short answer and problems

APEC 3002 Applied Microeconomics: Managerial Economics
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 2008

APEC 3451 Food and Agricultural Sales
3 credit(s); prereq 1101 or Econ 1101; Instructor: Nefstead, Ward Elliot
Description: Professional selling of agricultural and food products. Building and refining sales abilities, identifying and qualifying prospects, delivering effective sales presentations and closing the sale, utilizing principles of market research including market segmentation methods. The class will involve explorations of careers in sales via guest speakers and other audiovisual aids. Students will develop and deliver a professional sales presentation.
Style: 80% Lecture, 20% Discussion.
Grading: 15% mid exam, 20% final exam, 50% special projects, 15% laboratory evaluation.
Exam Format: Essay

APEC 3611 Environmental and Natural Resource Economics
3 credit(s); prereq 1101 or Econ 1101; Meets CLE req of Environment Theme;
Instructor: Homans, Frances Reed
Description: Student may contact the instructor or department for information.

APEC 3811 Principles of Farm Management
3 credit(s); prereq 1101 or Econ 1101;
Instructor: Olson, Kent D
Description: Strategic and operations aspects of farm management; strategic management; budgeting; production and operations planning; quality management and control; financial analysis and management; investment analysis; land purchase and rental; risk management; contract evaluation; and staffing and organization. Students completing the course will be able to:
1) Define the terms and concepts commonly used in farm management; 2) Apply methods to identify issues and analyze strategic options for farms; 3) Apply operations management techniques within a systems perspective of other parts of the farm, and the uncertain economic, climatic, and biological environments in which farms operate; 4) Apply knowledge obtained in previous courses to farm management problems; and 5) Strengthen skills in teamwork, problem solving, interviewing, speaking, and report writing. The target audience is primarily undergraduates in an agricultural major, although graduate students in agricultural fields may benefit from this course as well.
Style: 50% Lecture, 50% Discussion.
Grading: 30% mid exam, 30% final exam, 40% problem solving.
Exam Format: Short answer, short essay, multiple choice, problems.

APEC 3821 Retail Center Management
3 credit(s); prereq [1101 or Econ 1101], [1251 or Acct 2050];
Instructor: Nefstead, Ward Elliot
Description: Management of garden centers, grocery stores and other retail units selling perishable agricultural products. This course will involve accounting and management aspects of related retail business. Part of the class with focus on ecommerce applications. Group exercises and management cases/simulations will be used as well as assigned projects off campus.
Style: 70% Lecture, 15% Discussion, 15% Laboratory.
Grading: 20% mid exam, 35% final exam, 20% special projects, 10% laboratory evaluation, 15% problem solving.
Exam Format: Multiple choice, essay, short answer

APEC 3991 Independent Study in Applied Economics
1-4 credit(s), max credits 4, 1 repeat 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 repeats allowed; prereq COAFES jr or sr, instr consent, complete internship contract available in COAFES Career Services before enrolling; UC only;
Instructor: STAFF
Description: Professional experience in agribusiness firms or government agencies gained through supervised practical
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 Citizenship/Publ Ethics Theme; meets CLE req of International Perspect Theme;
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.

APEC 4501 Financial Modeling
A-F only, 3 credit(s); prereq [3501 or FINA 3001], [1251 or ACCT 2050];
Instructor: Pederson, Glenn Darwin
Description: The objective of the course is to give students experience in designing and implementing solutions to financial and management problems with the use of the Microsoft Excel spreadsheet software. The course will emphasize the development of computer-based tools, rather than the use of existing tools or templates. In this way students will gain valuable practical experience in how to interpret and implement concepts and theories that are found in the fields of economics, finance and management. This is a full-semester, 3-credit course that incorporates a combination of short introductory lectures, cases, and computer labs. The course will meet twice per week in the computer lab. On some topics there may be invited speakers from the finance industry to introduce or discuss an application with the class.
Style: 10% Lecture, 90% Laboratory.
Grading: 10% in-class presentation, 90% laboratory evaluation.

APEC 4821W Business Economics and Strategy
3 credit(s); same as ACCT 3502, [3501 or FINA 3001], MGMT 3001; Meets CLE req of Writing Intensive;
Instructor: Yeap, Clarissa A
Description: Strategic management for production, processing, wholesaling, retailing, and service. Establishing mission and goals; strategy formation, implementation, and control; business plans; case study analysis. Students completing the course will be able to: 1) Define the terms and concepts commonly used in the strategic management literature; 2) Describe the tasks included in strategic management; 3) Apply methods to identify strategic issues and to analyze strategic options for firms in the food system; 4) Understand how strategic plans are formulated and executed successfully in a variety of organizational circumstances; 5) Apply knowledge obtained in previous courses to agribusiness management problems; and 6) Develop and strengthen skills in teamwork, problem solving, speaking, and report writing. The target audience is primarily undergraduates in the agricultural and food business management major, although other students may benefit from this course as well.
Style: 40% Lecture, 25% Discussion, 35% Laboratory.
Grading: 30% reports/papers, 25% special projects, 45% other evaluation. mid-semester exams
Exam Format: Short answer, short essay, problems

APEC 5032 Economic Data Analysis for Managerial and Policy Decisions
3 credit(s); prereq [5031 or instr consent], familiarity with SAS;
Instructor: Carlin, Caroline S
Description: Student may contact the instructor or department for information.

APEC 5152 Applied Macroeconomics: Income and Employment
3 credit(s); prereq 3001 or or Math 1271 or Math 2243 or equiv or grad student or instr consent;
Instructor: Smith, Rodney B
Description: This course begins with a review of the fundamentals of micro economics of the consumer and firm. These fundamentals are used to develop, explain and apply a static general equilibrium trade model of an economy. Selected economy wide policies are discussed such as the basics of financial crises. The next section introduces the Solow model and growth accounting. The last section draws upon the static and the Solow model and growth accounting to develop a multi-sector growth model. This framework is used to explain savings, sources of growth, change in economy structure, and long-run equilibrim concepts.
Style: 80% Lecture, 20% Discussion.
Grading: 45% mid exam, 45% final exam, 10% problem solving.
Exam Format: Essay

APEC 5341 Public Finance
A-F only, 3 credit(s); prereq 3001 or Econ 3101 or PA 5021;
Instructor: Temple, Judy
Description: Student may contact the instructor or department for information.

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.
Grading: 30% final exam, 40% other evaluation. exams, 30% assignments
Exam Format: Multiple choice and essay; take-home essay for final

APEC 5811 Cooperative Organization
3 credit(s); prereq 3001 or Econ 3101 or PA 5021 or instr consent;
Instructor: King, Robert P
Description: Student may contact the instructor or department for information.

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

APEC 5991 Special Topics and Independent Study in Applied Economics
1-4 credit(s), max credits 12, 12 repeats 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 8203 Applied Welfare Economics and Public Policy
3 credit(s); prereq calculus, intermediate econ theory;
Instructor: Runge, Carlisle Ford
Description:
Description: Student may contact the instructor or department for information.

APEC 8206 Dynamic Optimization: Applications in Economics and Management
A-F only, 0-3 credit(s), max credits 3, 1 repeat allowed; prereq 5151 or equiv or instr consent;
Instructor: Homans, Frances Reed
Description: Student may contact the instructor or department for information.

APEC 8212 Econometric Analysis II
4 credit(s); prereq 8211 or equiv or instr consent;
Instructor: Glewe, Paul W
Description: Student may contact the instructor or department for information.

APEC 8403 Demand Analysis and Household Economics
A-F only, 2 credit(s); prereq [8211, 8212, Econ 5151] or [Econ 8001, Econ 8002] or [Econ 8101, Econ 8102] or [Econ 8201, Econ 8202, Econ 8203, Econ 8204] or instr consent;
Instructor: Glewe, Paul W
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.

Applied Plant Sciences
411 Borlaug Hall

APSC 8123 Research Ethics in the Plant and Environmental Sciences
S-N only, 0.5 credit(s); prereq Grad student; Credit will not be granted if credit has been received for: PLPA 8123;
Instructor: Steffenson, Brian Joel
Description: Student may contact the instructor or department for information.

Arabic
808 Social Sciences Tower

ARAB 1102 Beginning Arabic
5 credit(s); prereq 1101 or equiv or instr consent;
Instructor: Khalek, Hisham A
Description: Arabic 1102 is the second in a sequence of courses aimed at reading, speaking, listening, and writing formal Arabic, also known as Modern Standard Arabic. The four language skills of reading, listening, writing, and speaking will be utilized and practiced. The class focuses on learning basic grammar and its applicability in daily conversations, reading elementary level Arabic, and writing simple sentences. Listening drills and exercises are also applied and practiced in class and in the language lab by listening and watching audio and video materials. The course also introduces students to the cultures of the Arabic-speaking people. The target audience includes undergraduate as well as graduate students. The text used is Al-Kitaab, Part One. By Brustad, Al-Batal, and Al-Tonsi, aided by audio and video cassettes.
Style: 40% Lecture, 40% Discussion. Culture.
Grading: 20% mid exam, 20% final exam, 30% quizzes, 10% class participation, 20% other evaluation. 20% homework.
Exam Format: Multiple choice and fill in the blank.

Instructor: Mohammed, Sidow Abdishariff
Description: Student may contact the instructor or department for information.

Architecture
110 Architecture Building

ARCH 1281 Design Fundamentals I
A-F only, 4 credit(s);
Instructor: Swackhammer, Marc T
Description: Student may contact the instructor or department for information.

ARCH 2381 Design Fundamentals II
A-F only, 4 credit(s); prereq [1301 or 2301], arch major;
Instructor: Ibarra Sevilla, Benjamin
Description: Student may contact the instructor or department for information.

ARCH 3282 Undergraduate Architecture Studio II
A-F only, 6 credit(s); prereq [3281 or 4281], BS Arch major;
Instructor: STAFF
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]; Meets CLE req of Other Humanities Core;
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;
Description: Basic concepts, tools, and techniques of computer-aided drawing with current AutoCAD Release.
Exam Format: review of drawings

ARCH 3351 AutoCAD I
3 credit(s); prereq Arch major or BED major or instr consent;
Description: Basic concepts, tools, and techniques of computer-aided drawing with current AutoCAD Release.
Exam Format: review of drawings

ARCH 3412 Architectural History Since 1750

This information is accurate as of 6/9/2008 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 3412H Honors: Architectural History Since 1750
A-F only, 3 credit(s); prereq Soph, honors; Meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme;
Instructor: Iannacone,Rachel
Description: History and theories of architecture and related landscapes and urban forms since 1750.

ARCH 4552 Integrated Design Processes
A-F only, 3 credit(s);
Instructor: STAFF
Description: The course will provide a comprehensive understanding of the multiple engineered systems (structural, electrical, mechanical, plumbing, fire safety, lighting, etc.) that require design and integration in a contemporary architectural project. Students will examine the entire project team makeup -- design professionals, technical consultants, and constructors -- their roles and responsibilities, the various project delivery methods and how they impact project cost, quality and scheduling, as well as the professional's responsibility to clients and community in terms of sustainability, health, safety and welfare.

ARCH 4672 Historic Building Conservation
A-F only, 3 credit(s); prereq 4671 or instr consent;
Instructor: Mack,Robert Callan

ARCH 5292 Accelerated Undergraduate Architecture Studio II
A-F only, 6 credit(s); prereq [5291, accelerated status] or instr consent;
Instructor: Roe,Sharon Louise
Description: Student may contact the instructor or department for information.

ARCH 5301 Conceptual Drawing
A-F only, 3 credit(s); prereq MArch major or instr consent;
Instructor: Piotrowski,Andrzej
Description: Drawing as a way of analyzing, exploring, and generating design ideas. Projection systems, diagramming, mapping. Different modes of visual perception. Nonverbal structures.

ARCH 5361 3-D Computer Architectural Modeling and Design
A-F only, 3 credit(s); prereq 3351, Arch major;
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.

ARCH 5362 Computer-Aided Architectural Design
A-F only, 3 credit(s); prereq 3381 or 5361;
Instructor: Anderson,Lee Bruce
Description: Student may contact the instructor or department for information.

ARCH 5672 Historic Building Conservation
3 credit(s); prereq 3412, 5671 or instr consent;
Instructor: Mack,Robert Callan
Description: This course is designed to provide an understanding of historic building materials and the recording of historic properties. Topics include an examination of the historical building materials frequently encountered in historic preservation. Characteristics of historic building materials and techniques for their stabilization and rehabilitation are discussed. Discussions also include structural systems and building repair, building pathology, introduction of new environmental systems in historic buildings, and conservation of historic interiors. Sessions concerning recording focus on the use of small- and large-format photography, preparation of measured drawings, and physical investigations of existing structures. Material is presented through illustrated lectures, guest lecturers, and field trips, and "hands-on" experience. Student work includes a term paper and preparation of documentation for an historic site. Textbooks include "Conserving Buildings" by Martin Weaver, the
“Presentation Briefs” from the National Park Service, and “Recording Historic Structures” edited by John Burns. The course should appeal to anyone interested in the technical aspects of historic preservation. Students in past have come from interior design, urban studies, housing, construction trades, and art history as well as from architecture. 

Style: 50% Lecture, 15% Discussion, 35% Laboratory. 
Grading: 35% reports/papers, 35% special projects, 20% quizzes, 10% problem solving.

Exam Format: Essay.

ARTS 1102 Painting
A-F only, 4 credit(s); prereq 1101 or instr consent; 
Instructor: Kuhr,Alexis
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 Other Humanities Core; 
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 1502 Printmaking: Relief, Screen, and Digital
4 credit(s); Meets CLE req of Other Humanities Core; 
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. 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: 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 1701 Photography
4 credit(s); Meets CLE req of Other Humanities Core; 
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.
ARTS 1702 Digital Photography
4 credit(s);
Instructor: STAFF
Description: Introduction to conceptual, technical and historical aspects of photographic 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 Other Humanities Core;
Instructor: STAFF
Description: Fundamentals of wheel-thrown and hand-built ceramics as forms of creative expression. Introduction to clay, glazes, and firing techniques.

ARTS 3010 Intermediate Drawing
4 credit(s); prereq 1001, 1101 Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Lyon, Joyce
Description: Objectives: to continue the exploration of the visual and expressive possibilities of drawing begun in Arts 1101 with the goal of further developing skills and understanding as well as a more personal relationship to drawing. The class will deal with various conceptual approaches to drawing as well as its expressive potential. A major focus will be on the creative process of developing image and ideas through a series of works. A variety of materials will be used, including black and white (charcoal, ink) and color media (pastel, oil pastel). There will be definite assignments and deadlines - important to keep development and adrenaline on track - but also a segment of the class will be run on a workshop basis which implies both greater independence and greater responsibility. Open to majors and non-majors who have fulfilled the prerequisites (which will be strictly checked); Arts 1001 and 1101. Also requires curiosity, readiness for risk taking, active efforts to assimilate new ideas, and passionate hard work.
Style: 20% Lecture, 60% Laboratory. Class discussion/critique
Grading: 100% other evaluation. 40% classwork, 40% homework, 10% paper, 10% sketchbook

ARTS 3011 Intermediate Drawing
4 credit(s); prereq 1001, 1101 Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Ostapchuk, Mark
Description: Student may contact the instructor or department for information.

ARTS 3012 Intermediate Drawing
4 credit(s); prereq 1001, 1101, 1102 Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Rose, Thomas Albert
Description: 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. Each student's work is both a condition of space and an accommodation to space, resulting in the creation of 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 studio. The format is open and casual with students able to work independently. No specific material or media is stressed.

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: Lyon, Joyce
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: Connaughton, Sean P
Description: Student may contact the instructor or department for information.

ARTS 3105 Dimensional 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 3111 Life Drawing I
4 credit(s); prereq 1001, 1101 Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Bussey, Margaret Barten
Description: Focus on the human form with an introduction to anatomy. Exploration of various concepts of representation and methods of image construction. Work from life models, anatomical casts, skeleton, memory and imagination.

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: 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. Each student's work is both a condition of space and an accommodation to space, resulting in the creation of 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 studio. The format is open and casual with students able to work independently. No specific material or media is stressed.

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 1101W Concepts in 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. 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. Demonstrations, critique, studio work in the foundry

**Grading:** 20% reports/papers, 10% quizzes, 60% other evaluation. Creative work in Cast Metal

**Exam Format:** Individual and group critique

**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:** Potratz,Wayne E

**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:** Individual and Group Critique

**ARTS 3305 Sculpture: Kinetics**

4 credit(s); prereq 1001, 1301 Note: Students without stated prerequisites will not be allowed to continue in this course.;

**Instructor:** Baldwin,Guy A

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

**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:** Larson,Chris Peter

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

**ARTS 3402 Artists' Books**

4 credit(s); prereq 1001, one visual art course Note: Students without stated prerequisites will not be allowed to continue in this course.;

**Instructor:** Rathmel,Jeff A

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

**ARTS 3402 Artists' Books**

4 credit(s); prereq 1001, one visual art course Note: Students without stated prerequisites will not be allowed to continue in this course.;

**Instructor:** Pauly,Mary Jo

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

**ARTS 3403 Women's Images and Images of Women**

3 credit(s); prereq 1001 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.; Credit will not be granted if credit has been received for: ARTS 5403; Meets CLE req of Cultural Diversity Theme

**Instructor:** Holmes,Mimi

**Description:** This course explores the role of women artists past & present and considers how Western society has constructed the participation of women in the Visual Arts through two perspectives: women as artists and the imagery they have created; and women as the subject of imagery and the attitudes those images convey. The intent of this course is to combine studio arts and art historical perspectives in a study of the work of women artists and the portrayal of women in Western art. In addition to slide lectures acquainting students with the work of women artists, we will be revisiting the methods of Feminist Artists of the 1970's by forming groups to create different collaborative projects. COURSE REQUIREMENTS: Because we have only 15 classes, attendance and full participation are very important. All students are expected to attend and participate in each class. Two absences will lower your grade; five or more absences will result in you automatically failing the course. Two lates / leave earlies will count as one absence. Many students last semester had their grade stepped down once, twice, even three times due to absences. I'm a stickler on this. You being in class, on time, is important to me. Grading: 20% weekly journal (10%), reading notes (5%), discussion participation (5%) 20% self-portrait project 20% collaborative oral presentation 20% collaborative art project 20% Final Project (art work if taking class as a Studio Arts; or paper if taking as an Art History)

**Style:** 30% Lecture, 15% Discussion. Crits of student work; videos on artists

**Grading:** 15% reports/papers, 20% special projects, 20% in-class presentation, 50% class participation, 40% other evaluation. 2 collaborative projects, 2 self-portraits, & Final Project

**ARTS 3420 Visiting Artists Program**

S-N only, 1 credit(s), max credits 2; prereq Arts or instr consent ;

**Instructor:** Lewis,Josephine R

**Description:** The Visiting Artist Program is a 1 credit, pass/fail course that is partially delivered on WebCT. The requirements for the class are attending the visiting artist lectures throughout the semester (usually 3-5) and posting a 300-500 word response on WebCT. The lectures are always on Thursday nights from 7-9pm in the Regis Center for Art on the West Bank. There will be an informational session at the beginning of the semester. Once you have registered you will receive more detailed information regarding the dates/times of the meetings; all time requirements will be on Thursday evenings.

**ARTS 3444 Major Project**

S-N only, 1-3 credit(s), max credits 3, 1 repeat 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 and exhibitions. All students who want to self-design a project (1-3 credits) with an individual, regular
ARTS 3496 Internship in the Arts  
S-N only, 1-3 credit(s), max credits 3, 1 repeat 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 3499 Internship at Katherine E. Nash Gallery  
S-N only, 3 credit(s); prereq 1001, instr consent;  
Instructor: Shank, Nicholas Bowers  
Description: Student may contact the instructor or department for information.

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

ARTS 3510 Intermediate Printmaking: Traditional and Contemporary Approaches  
4 credit(s), max credits 8; prereq 1001, [1501 or 1502];  
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 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 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 35mm 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: Newhall, Justin Robb  
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: Lane, Thomas J  
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: Yamada, Tetsuya  
Description: Student may contact the instructor or department for information.

ARTS 505 Advanced Dimensional Painting  
4 credit(s); prereq 3105 or instr consent;  
Instructor: Feinberg, David L  
Description: Student may contact the instructor or department for information.

ARTS 5110 Advanced Drawing  
4 credit(s), max credits 12, 4 repeats allowed; prereq 3101 or 3111 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.;  
Instructor: Katsiafas, Diane  
Description: Drawing for sites 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 site and ecological responsibility. The purpose is that they 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 and a final project. Each project will be reviewed, critiqued and graded. These projects are 70% of your grade. Classroom participation 15%. Attendance 15%.  
Style: 5% Lecture, 25% Discussion. studio/classroom work  
Grading: 15% in-class presentation, 15% class participation.

ARTS 5110 Advanced Drawing  
4 credit(s), max credits 12, 4 repeats allowed; prereq 3101 or 3111 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 5110 Advanced Drawing  
4 credit(s), max credits 12, 4 repeats allowed; prereq 3101 or 3111 or instr consent 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 5120 Advanced Painting
4 credit(s), max credits 12, 4 repeats allowed; prereq 3102 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Morgan, Clarence E.
Description: Student may contact the instructor or department for information.

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

ARTS 5130 Advanced Painting: Watercolor
4 credit(s), max credits 12, 4 repeats allowed; prereq 3102 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Bussey, Margaret Barten
Description: Expressive/technical possibilities of transparent watercolor, for those new to the medium and for those with previous watercolor experience. Emphasizes pictorial structure, color relationships, visual expression. Work from still life, nature, life model, imagination.

ARTS 5320 Advanced Sculpture: Spatial Problems
4 credit(s), max credits 12, 4 repeats 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: 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. Each student's work is both a condition of space and an accommodation to space, resulting in the creation of 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.

ARTS 5330 Advanced Sculpture: Metal Casting
4 credit(s), max credits 12, 4 repeats 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. Most 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 Tatara, 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 tatara during 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 5350 Advanced Sculpture: Kinetics
4 credit(s), max credits 12, 4 repeats allowed; prereq 3305 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Baldwin, Guy A
Description: Student may contact the instructor or department for information.

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

ARTS 5402 Artists' Books
4 credit(s); prereq 3402 or instr consent Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Rathermel, Jeff A
Description: Student may contact the instructor or department for information.

ARTS 5403 Women's Images and Images of Women
3 credit(s); prereq 3403; Meets CLE req of Cultural Diversity Theme
Description: This course explores the role of women artists past & present and considers how Western society has constructed the participation of women in the Visual Arts through two perspectives: women as artists and the imagery they have created; and women as the subject of imagery and the attitudes those images convey. The intent of this course is to combine studio arts and art historical perspectives in a study of the work of women artists and the portrayal of women in Western art. In addition to slide lectures acquainting students with the work of women artists, we will be revisiting the methods of Feminist Artists of the 1970s by forming groups to create different collaborative projects. COURSE REQUIREMENTS: Because we have only 15 classes, attendance and full participation are very important. All students are expected to attend and participate in each class. Two absences will lower your grade; five or more absences will result in you automatically failing the course. Two late / leave earlies will count as one absence. Many students last semester had their grade stepped down once, twice, even
ARTS 5441 Professional Practices  
3 credit(s); prereq Grad or instr consent;  
Instructor: Kosmalski,Suzanne  
Description: Class will attend all visiting artist events on Thursday evenings in the Regis Center for Art. Topics will include: --Creating a professional curriculum vitae and exhibition resume --Creating a packet/book/CD of artist materials for galleries and exhibition opportunities --Writing artist statement for grants, galleries --Creating an individual web presence --Creating a presence on a Minnesota; New York- and London-based Artist Registry --Writing a proposal for an exhibition or grant of your choice from opportunities presented in class or your research --Meeting curators, gallerists from the local community including the Walker Art Center; and Doryun Chug, co-curator of Brave New Worlds --Visiting artist(s) from Minnesota who are showing work outside the region --The nuts and bolts of money--and making a living as an artist

ARTS 5444 Bachelor of Fine Arts Exhibition  
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;  
Instructor: Pharis,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 Tjernan  
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: Larson,Chris Peter  
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: Baeumler,Christine Arle  
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: 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: Morgan,Clarence 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: Katsiaficas,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: Lane,Thomas J  
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: Hallman,Gary 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: Hoard,Curtis C  
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: Estep,Jan  
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: Stanislav, Andrea Christine
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 5444 Bachelor of Fine Arts Exhibition
S-N only, 1 credit(s); prereq 5400, BFA candidate, sr;
Instructor: Momeni, Ali
Description: Student may contact the instructor or department for information.

ARTS 5510 Advanced Printmaking
4 credit(s), max credits 12, 3 repeats allowed; prereq 3510 or instr consent
Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Paul, Stephen
Description: This class offers students the opportunity to develop their work by exploring advanced techniques including photo-lithography, monoprinting, 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 5640 Advanced Animation
4 credit(s), max credits 12, 3 repeats 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 5701 Performed Photography: Documentation of Artistic Acts and Social Interventions
4 credit(s); prereq Two 3xxx [photography or video] courses;
Instructor: Estep, Jan
Description: This studio course focuses on the use of the camera and other image-based media to document various artistic, site-specific acts that might otherwise go unnoticed. It investigates the relationship between the original event (performance, social intervention, sculptural prop, ephemeral gesture) and the memory trace left behind in its image/record. This is an informed studio course, with emphasis on seminar-style discussion of readings, ideas, artists, and group critiques. Directed artistic assignments target specific points about this way of working. Art historical issues include Body Art, Performance Art, Conceptual Art, and Landscape Art. Broader issues include the relationship between art and life, private and public realms, subject and image, performer and viewer, and object and intent. Although we will focus on photography, students can work in a range of media to record their assignments (audio, video, drawing, text, installation as well as photography). Open to graduate and undergraduate students.
Style: Class is structured around slide/video presentations of relevant artists’ work, theoretical readings, art assignments that involve participation in front of as well as behind the camera, and group critique.

ARTS 5710 Advanced Photography
4 credit(s), max credits 12, 3 repeats 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: Estep, Jan
Description: Student may contact the instructor or department for information.

ARTS 5810 Advanced Ceramics
4 credit(s), max credits 12, 4 repeats allowed; prereq [3801, 3802, 3810] or instr consent
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 5821 Ceramic Materials Analysis
4 credit(s); prereq 3801 or 3802 or instr consent
Note: Students without stated prerequisites will not be allowed to continue in this course.;
Instructor: Bohls, Margaret
Description: Student may contact the instructor or department for information.

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

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

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

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

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

ARTS 8401 Studio and Pedagogy: Philosophy and Practice
3 credit(s), max credits 6; prereq Art MFA student;
Instructor: Baeumler, Christine Arle
Description: Student may contact the instructor or department for information.

ARTS 8100 Drawing and Painting: Theory and Practice
3 credit(s), max credits 12, 4 repeats allowed; prereq Art MFA student;
Instructor: Baeumler, Christine Arle
Description: Student may contact the instructor or department for information.

ARTS 8300 Sculpture: Theory and Analysis
3 credit(s), max credits 6;
Instructor: Potratz, Wayne E
Description: The Edge of the Other. As schooled and trained artists we strive for a certain professionalism in our work, our attitudes towards art, and in our careers. If we represent the ?center? or the ?core? of art, what is going on at the edge of art that may be instructive or inspiring? The seminar will look at peripheral activities such as Outsider Art, Roadside Art, Art from the mentally disabled or challenged, graffiti, tattoos, and other activities at the edge of art through readings, field trips, sculpture projects, and other activities.
Style: 30% Discussion, 20% Student Presentation, 40% Field Trips, 10% Studio.
Grading: 30% special projects, 10% attendance, 30% in-class presentation, 30% class participation.

ARTS 8401 Studio and Pedagogy: Philosophy and Practice
3 credit(s), max credits 6;
Instructor: Baeumler, Christine Arle
Description: Student may contact the instructor or department for information.
ARTS 8401 Studio and Pedagogy: Philosophy and Practice
3 credit(s), max credits 6;
Instructor: Feinberg, David L
Description: Student may contact the instructor or department for information.

ARTS 8401 Studio and Pedagogy: Philosophy and Practice
3 credit(s), max credits 6;
Instructor: Gray, Lynn Arlyn
Description: Student may contact the instructor or department for information.

ARTS 8420 Seminar: Visiting Artists Program
2 credit(s), max credits 4; prereq MFA student;
Instructor: Baeumler, Christine Arle
Description: Student may contact the instructor or department for information.

ARTS 8500 Printmaking: Theory and Practice
3 credit(s), max credits 12, 4 repeats allowed;
Instructor: Schmid, Jenny
Description: Student may contact the instructor or department for information.

ARTS 8600 Time and Interactivity: Theory and Practice
3 credit(s), max credits 12, 4 repeats allowed;
Instructor: Willow, Diane
Description: Student may contact the instructor or department for information.

ARTS 8700 Photography: Theory and Practice
3 credit(s), max credits 12, 4 repeats allowed;
Instructor: Henkel, James V
Description: Student may contact the instructor or department for information.

ARTS 8700 Photography: Theory and Practice
3 credit(s), max credits 12, 4 repeats allowed;
Instructor: Hallman, Gary L
Description: Student may contact the instructor or department for information.

ARTS 8700 Photography: Theory and Practice
3 credit(s), max credits 12, 4 repeats 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 repeats allowed;
Instructor: Lane, Thomas J
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 repeats allowed; prereq Art MFA candidate, passed oral/written prelim, instr consent;
Instructor: Baeumler, Christine Arle
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 repeats 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 repeats allowed; prereq Art MFA candidate, passed oral/written prelim, instr consent;
Instructor: Morgan, Clarence 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 repeats 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 repeats 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 repeats allowed; prereq Art MFA candidate, passed oral/written prelim, instr consent;
Instructor: Lane, Thomas J
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 repeats allowed; prereq Art MFA candidate, passed oral/written prelim, instr consent;
Instructor: Gray, Lynn Arlyn
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 repeats allowed; prereq Art MFA candidate, passed oral/written prelim, instr consent;
Instructor: Hallman, Gary 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 repeats allowed; prereq Art MFA candidate, passed oral/written prelim, instr consent;
Instructor: Hoard, Curtis C
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 repeats allowed; prereq Art MFA candidate, passed oral/written prelim, instr consent;
Instructor: Lukkas, Lynn Tjernan
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 repeats 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 repeats allowed; prereq Art MFA candidate, passed oral/written prelim, instr consent; Instructor: Kuhr, Alexis
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 repeats allowed; prereq Art MFA candidate, passed oral/written prelim, instr consent; Instructor: Estep, Jan
Instructor: MFA candidate, passed oral/written prelim, instr consent; Instructor: Asher, Frederick M
Description: Student may contact the instructor or department for information.

ARTH 3017 Islamic Culture
3 credit(s); Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive;
Instructor: Potratz, Wayne E
Description: This course will examine a representative selection of the art produced in China, Korea and Japan from the Neolithic era down to Modern times. Art of every type and style, such as ancient jades and ritual bronze vessels, Buddhist sculpture and temple architecture, landscape paintings and gardens, and popular paintings and prints is included. We will employ archaeological and art historical techniques to situate these objects in their cultural setting while underlining their character as unique works of art. This course will be web enhanced and a teaching assistant will be available to assist you in the preparation of a short take-home museum assignment. This course is intended for undergraduates. No previous courses in art history are required.
Style: 80% Lecture, 20% Discussion.
Grading: 33% mid exam, 33% final exam, 33% reports/papers.
Exam Format: essay

ARTH 3014W Art of India
3 credit(s); Credit will not be granted if credit has been received for: ALL 3014W; Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive;
Instructor: Poor, Robert John
Description: This course will examine the extraordinary range of visual material produced in the Indian subcontinent, ranging from the magnificent cities of the Harappan culture, probably the most advanced anywhere in the world at their time, to the works illustrating Buddhist narratives for residents of monasteries in the homeland of Buddhism. It looks at the conception of extraordinary Hindu temples to the magnificent Islamic structures of the Indian subcontinent. And it considers the role of manuscript painting as well as the works produced under British colonial domination and during independent India as well as Bollywood cinema. Finally, the course considers the art of India beyond the Indian subcontinent, that is, as part of the global Indian Diaspora. There will be two papers, one a short paper on a film, the other a research paper that takes advantage of the unparalleled library resources at the University of Minnesota, two exams, and a final exam. Weekly sections offer the opportunity to discuss issues that the visual material presents.

ARTH 1002W Why Art Matters
4 credit(s); Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive;
Instructor: Asher, Frederick M
Description: This course will be web enhanced and a teaching assistant will be available to assist you in the preparation of a short take-home museum assignment. This course is intended for undergraduates. No previous courses in art history are required.
Style: 80% Lecture, 20% Discussion.
Grading: 33% mid exam, 33% final exam, 33% reports/papers.
Exam Format: essay

ARTH 3017 Islamic Culture
4 credit(s); Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; Instructor: Asher, Catherine B
Description: Student may contact the instructor or department for information.
Description: This course will emphasis the visual and literary culture of the Islamic world from the inception of Islam to the present day. It will be global in content considering architecture, painting, luxury arts, film, religious and secular literature including both poetry and prose. Analysis of original visual and literary sources will for the basis for understanding diverse cultural developments.

Style: 60% Lecture, 15% Film/Video, 15% Discussion, 10% Small Group Activities.

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

ARTH 3162 Roman Art and Archaeology
4 credit(s); Credit will not be granted if credit has been received for: CNES 3162; Meets CLE req of Other Humanities Core;
Instructor: Mc Nally, Sheila J
Description: Student may contact the instructor or department for information.

ARTH 3315 The Age of Curiosity: Art and Knowledge in Europe, 1500-1800.
3 credit(s);
Instructor: Gaudio, Michael P
Description: During the early modern period in Europe (ca. 1500-1800), borders between ?art? and ?science? (to the extent that these borders existed at all) were very much in-the-making, and it was possible to cross them with relative ease. Leonardo da Vinci is just one example of an early modern artist for whom the distinction between the artist?s creative capacities and the pursuit of scientific curiosity was, to put it simply, unfathomable. This course will introduce you to the diverse ways in which the making of art and the making of scientific knowledge intersected in early modern Europe. We will explore connections between scientific curiosity and the visual arts by considering major artists (da Vinci, Durer, Vermeer, Rembrandt, etc). We will also consider the artfulness of visual materials we tend to classify as ?scientific,? including scientific imagery and diagrams, geographical maps, cabinets of curiosities, and new visual technologies such as the telescope and microscope.

ARTH 3422 Off the Wall: History of Graphic Arts in Europe and America in the Modern Age
4 credit(s);
Instructor: Weisberg, Gabriel
Description: An examination of all the pertinent graphic arts movements from the end of the eighteenth century to 1980. Special emphasis is placed on the social context of each tendency, the political ramifications of a given artist's stance, and the ways in which the graphic arts reflected and responded to societal implications. The course examines caricature, political satire, the emergence of new print techniques (eg. color lithography), the value of the poster as an advertising medium and design issues in the 20th century. Audience: all interested undergraduates from all humanities disciplines. Textbooks: Linda C. Hulls, "The Print in the Western World An Introductory History," Madison, WI: University of Wisconsin Press, 1996 and Robert Goldstein, "Censorship in Political Caricature in Nineteenth Century France, Kent State University Press, 1989.
Style: 90% Lecture, 10% Discussion.
Grading: 25% mid exam, 45% final exam, 30% reports/papers.
Exam Format: Slide exam

ARTH 3921W Art of the Film
4 credit(s); Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive;
Instructor: Silverman, Robert B
Description: This course provides an introduction to the history and aesthetics of film. Special attention is paid to major film directors, genres, and styles; to the relation between film and other arts (literature, theater, photography, painting, music); and to the relation between film and society. Among the films shown are "The Birth of a Nation," "Metropolis," "Citizen Kane," "Rashomon," and "Bonnie and Clyde." The course is appropriate for non-major undergraduates as well as Art History and Cinema Studies majors. This course follows a lecture/discussion format.

There are required discussion sections. Most films are screened in class but there will be additional films that students will be required to watch on videos/DVDs. The term paper is 6-8 pages long; it is not a research paper. There will also be several brief (one-page) writing assignments. Textbooks: Bordwell and Thompson, Film Art and Film History.
Style: 80% Lecture, 20% Discussion.
Grading: 25% mid exam, 35% final exam, 40% reports/papers.
Exam Format: short answer (terminology and concepts), film clip ID (brief analysis), essay

ARTH 3975 Directed Museum Experience
S-N only, 1-2 credit(s), max credits 2, 1 repeat 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 repeats allowed; prereq instr consent;
Instructor: Asher, Catherine B
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 repeats 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 repeats allowed; prereq instr consent;
Instructor: Poor, Robert John
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 repeats allowed; prereq instr consent;
Instructor: Weisberg, Gabriel
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 repeats allowed; prereq instr consent;
Instructor: Mc Nally, 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 repeats allowed; prereq instr consent;
Instructor: Weisberg, Gabriel
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 repeats allowed; prereq instr consent;
Instructor: Silverman, Robert B
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 repeats 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 repeats allowed; prereq instr consent;
Instructor: Silverman, Robert B
Description: Student may contact the instructor or department for information.
prereq instr consent.
Instructor: Blocker, Jane M
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 repeats allowed;
prereq instr consent;
Instructor: Gaudio, Michael P
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 repeats allowed;
prereq instr consent;
Instructor: Ostrow, Steven F
Description: Student may contact the instructor or department for information.

ARTH 5172 House, Villa, Tomb: Roman Art in the Private Sphere
3 credit(s);
prereq One intro art history course or instr consent;
Credit will not be granted if credit has been received for: CNES 5172;
Instructor: Mc Nally, Sheila J
Description: Student may contact the instructor or department for information.

ARTH 5454 Design Reform in the Era of Art Nouveau
3 credit(s);
Instructor: Weissberg, Gabriel
Description: The design reform era (1885-1930) is examined in France, Belgium, England, Germany, Austria, Scotland and the United States. Innovations in architecture, graphic arts, the applied arts (furniture, jewelry, fabrics) are studied. The major promoters and pioneers of modern design are discussed in this slide lecture class. Critical issues of design reform are examined; texts are integrated with a discussion of the principal monuments. Course texts include: Jeremy Howard, Art Nouveau, International and National Styles in Europe (1996) and Debora L. Silverman, Art Nouveau in Fin de Siecle France, Politics, Psychology and Style (1989). The target audience includes all students interested in visual culture, the history of thematic art history and humanities majors, art history majors. Slide reviews strengthen learning, a research paper, worked out through discussions with the professor, is essential. Original thematic content encouraged.
Style: 80% Lecture, 20% Discussion.
Grading: 30% midterm exam, 40% final exam, 30% reports/papers.
Exam Format: Slide exams and essays.

ARTH 5466 Contemporary Art
3 credit(s);
prereq 3464 or instr consent;
Instructor: Blocker, Jane M
Description: Aimed at advanced undergraduates and graduate students, this course will survey the art and important critical literature of the last thirty-five years. Its goal is to examine the aesthetic and theoretical debates of this period, including such things as postmodernism, poststructuralism, new media, and theories of globalization. Its goal is to contextualize, both historically and theoretically, the present state of art production and reception. Students will be asked to read critical texts, participate in discussions, and write three take-home essay exams.
Style: 50% Lecture, 50% Discussion.
Grading: 90% reports/papers, 10% class participation.
Exam Format: There will be three take-home essay exams/papers.

ARTH 5655 African American Cinema
3 credit(s);
Credit will not be granted if credit has been received for: AFRO 4655; Meets CLE req of Cultural Diversity Theme; meets CLE req of Other Humanities Core;
Instructor: Silberman, Robert B
Description: This course, co-taught by John Wright from the Department of African American & African Studies, and Rob Silberman, Department of Art History, examines film representations of the African American experience. It features films by both African American directors (Oscar Micheaux, Gordon Parks, Julie Dash, Spike Lee, Haile Gerima, etc.) and directors who are not African American (Dudley Murphy, Otto Preminger, Michael Roemer, etc.). Among the films to be viewed are Within Our Gates, The Emperor Jones, Nothing But a Man, The Learning Tree, Sankofa, Superfly, Daughters of the Dust, and Malcolm X. The course is appropriate for graduate students and advanced undergraduates. It follows a lecture-discussion format. Films will be screened in class each week; but students will be required to view additional films outside of class on video. Short papers and film responses will be assigned throughout the class. A research term paper 15-20 pages long must be completed at the end of the semester. The course will use a Course Lib web site on Lumina (AFRO 5655).
Style: 50% Lecture, 50% Discussion.
Grading: 25% midterm exam, 35% final exam, 40% reports/papers.
Exam Format: essay questions.

ARTH 5725 Ceramics in the Far East
3 credit(s);
Instructor: Poor, Robert John
Description: The course is intended as an introduction to the ceramic art of East Asia. The course emphasis will be on achieving a general understanding of this art, both as an autonomous tradition, and as a medium that is related to the broader artistic and historical traditions of their period and place of production. Although this is most emphatically not an all-inclusive historical survey we will examine most of the major types of ceramics made from prehistoric times to the present. The class will employ an illustrated lecture format with class discussion encouraged. There will be several field trips to local collections, both private and public, as well as some workshop knowledge as can be arranged. We will attempt to provide hands-on experience whenever that is possible. In addition to a short mid-year quiz and a final blue book exam students will be required to produce 10 pages of written work or an approved workshop alternative; the details of these assignments will be worked out on an individual basis. These written materials or their substitutes must be submitted one week prior to the date of the final exam as published in the official class schedule. No incompletes will be assigned without prior permission of the instructor. The required textbook is Philip Rawson, “Ceramics,” University of Pennsylvania Press.
Style: 80% Lecture, 20% Discussion.
Grading: 25% midterm exam, 25% final exam, 25% reports/papers, 25% special projects.
Exam Format: essay.

ARTH 5993 Directed Study
A-F only, 1-4 credit(s), max credits 12, 3 repeats 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 repeats allowed;
prereq instr consent;
Instructor: Cooper, Frederick A
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 repeats allowed;
prereq instr consent;
Instructor: Mc Nally, Sheila J
Description: Student may contact the instructor or department for information.
This information is accurate as of 6/9/2008 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 2008.
the core requirement for the Asian American Studies minor as well as elective requirements for the English major and minor.

**AAS 4920 Topics in Asian American Studies**
2-4 credit(s), max credits 8;

*Instructor:* Onishi,Yuichiro

*Description:* How have a series of U.S. wars and imperial adventures in Asia-Pacific since the turn of the twentieth century shaped the identities and communities of Asians, Asian Americans, and Pacific Islanders? In addition to covering the periods during which the United States was militarily at war with the Philippines, Japan, Korea, and Vietnam, this course explores European and U.S. colonialism in Hawaii, the preeminence of U.S. military bases in Okinawa and South Korea, resettlement among war refugees from Southeast Asia in the United States, and the workings of racialization and imperial politics in Asian American communities after 9/11. We are particularly interested in examining the reach of war and cultures of militarism in Asian American and Pacific Worlds. Among the topics examined are the nexus between race and war; memories of war; military violence against women; the experiences of “military brides”; questions of sovereignty; and strategies of demilitarization and anti-imperialist resistance. Since this course is conceived as a reading-intensive seminar, one of the requirements is that each student leads and facilitates a class discussion twice during the semester in pairs. Students who are interested in the comparative and global study of race and ethnicity, ideas of indigeneity, Gender, Women, and Sexuality Studies, Asian American Studies, American Studies, and U.S. foreign relations are encouraged to take this class.

*Style:* 30% Lecture, 70% Discussion.

*Grading:* 70% reports/papers, 20% in-class presentation, 10% class participation.

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**ALL 1904 Freshman Seminar: Religion and Modern Society**

*A-F only, 3 credit(s), max credits 6;*  

*Instructor:* Sahota,Bal S.

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

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**ALL 3900 Topics in Asian Literature: India through Time: Historicity and Periodization**

*3 credit(s), max credits 9, 3 repeats allowed;*  

*Instructor:* Sahota,Bali S.

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

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**ALL 3900 Topics in Asian Literature: A History of Classical Japanese Poetry**

*3 credit(s), max credits 9, 3 repeats allowed;*  

*Instructor:* Sahota,Bali S.

*Description:* Student may contact the instructor or department for information.
**Instructor:** Johnson, Jeffrey Richard  
**Description:** Student may contact the instructor or department for information.

**ALL 3900 Topics in Asian Literature: Global Haiku**  
3 credit(s), max credits 9, 3 repeats allowed;  
**Instructor:** Johnson, Jeffrey Richard  
**Description:** Student may contact the instructor or department for information.

**ALL 3920 Topics in Asian Culture: Writing (in) East Asian Cultures**  
3 credit(s), max credits 9, 3 repeats allowed;  
**Instructor:** Allen, Joseph R  
**Description:** Student may contact the instructor or department for information.

**ALL 3920 Topics in Asian Culture: Survey of Japanese Buddhism**  
3 credit(s), max credits 9, 3 repeats allowed;  
**Instructor:** Rouzer, Paul F  
**Description:** Student may contact the instructor or department for information.

**ALL 3990 Directed Study**  
1-3 credit(s), max credits 12, 4 repeats allowed; prereq instr consent, dept consent, college consent;  
**Instructor:** Anderson, Mark  
**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 5900 Topics in Asian Literature: India through Time: Historicity and Periodization**  
3 credit(s), max credits 12, 4 repeats allowed;  
**Instructor:** Sahota, Bali S.  
**Description:** What is capitalism, and what does it have to do with cultural phenomena such as literature, art, and philosophy? How has the logic of capitalism's unfolding over time and space - that is, in history and in geography - conditioned understandings of culture, established canons, and institutionalized hierarchies of knowledge, language, literature, art, and historical experience? What is ideology, and what relationship does ideology have to Art, Truth, or Freedom? To answer these questions, we will take our cue from Hegel and proceed to track the course of imminent materialist criticism as it developed through Marx, Lukacs, Adorno, Horkheimer, and Williams. The course will conclude with some contemporary reflections on the intersection of this tradition with the histories of anti-colonial politics and postcolonial thought, with the attention especially on recent works by Robert Young, Frederic Jameson, Timothy Brennan, and Christopher Connery. Some familiarity with Marxism, Critical Theory, and anti-colonial thought (as exemplified by thinkers such as Fanon, Gandhi, Cesaire, or Mao) is optimal, though not required.  
**Style:** 60% Lecture, 10% Film/Video, 30% Discussion.  
**Grading:** 80% reports/papers, 15% in-class presentation, 5% class participation. Option will be given to either write a long research paper or a series of short response papers on the units of the course.

**ALL 5920 Topics in Asian Culture: Japan and the State of Exception in the Pacific**  
3 credit(s), max credits 12, 4 repeats allowed;  
**Instructor:** Anderson, Mark  
**Description:** Student may contact the instructor or department for information.

**ALL 5920 Topics in Asian Culture: Shanghai Film Culture: The Golden Age**  
3 credit(s), max credits 12, 4 repeats allowed;  
**Instructor:** McGrath, Jason  
**Description:** Student may contact the instructor or department for information.

**ALL 5990 Directed Study**  
1-4 credit(s), max credits 16, 4 repeats allowed; prereq instr consent, dept consent, college consent;  
**Instructor:** Anderson, Mark  
**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 5990 Directed Study**  
1-4 credit(s), max credits 16, 4 repeats 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.

This information is accurate as of 6/9/2008 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.
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 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: Molasky, Michael S
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 repeats 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. 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 repeats 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. 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 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: Sahota, Bal S.
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 Theme; meets CLE req of Physical Science/Lab Core;
Instructor: STAFF
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 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 a week; on a fourth day each week two hours are spent in small groups working on a lab project. This course is intended for non-science majors: no science background is necessary. IT students should take AST 1011H.
Style: 60% Lecture, 15% Discussion, 25% Laboratory.
Grading: 35% mid exam, 25% final exam, 10% reports/papers, 10% special projects, 20% laboratory evaluation.
Exam Format: multiple choice, short answer, essay

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: STAFF
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 contemporary topics such as black holes, the expansion of the universe and the search for extraterrestrial life. Lectures are 2 days a week. This course is intended for non-science majors; no science background is necessary. IT students should take AST 1011H. Course meets concurrently with the evening section of AST 1001.
Style: 85% Lecture, 15% Discussion.
Grading: 60% mid exam, 40% final exam.
Exam Format: multiple choice + essay, or short answer

AST 1050 Freshman Seminar
1-3 credit(s), max credits 3, 1 repeat allowed; prereq freshman;
Instructor: Rudnick, Lawrence
Description: Student may contact the instructor or department for information.

AST 1050 Freshman Seminar
1-3 credit(s), max credits 3, 1 repeat allowed; prereq freshman;
Instructor: Rudnick, Lawrence
Description: Is nothing too wonderful to be true, as the great 18th century physicist Michael Faraday pondered? Following the Bard, in this seminar we will make much ado about "nothing."
From the birth of the Universe ex nihilo, to the philosophies that find meaning in nothing, to the tangle history of zero over the centuries, to our beginnings as seen by theologies when even nothing was not. In our journey through the teeming vacuum, "nothing" is sacred, and will be both ventured and gained. Caution is advised, however, in telling people that you've signed up for "nothing!" [URL is a puzzle; it will also be updated for 2008]
Style: 75% Discussion, 25% Student Presentation.
Grading: 40% reports/papers, 20% special projects, 20% in-class presentation, 20% class participation.

AST 2001 Introduction to Astrophysics
4 credit(s); prereq [One yr calculus, PHYS 1302] or instr consent;
Instructor: Woodward, Charles E
Description: Student may contact the instructor or department for information.
This information is accurate as of 6/9/2008 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.
**BIOC 3960 Research Topics in Biochemistry**

**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

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**BIOC 3021 Biochemistry**

3 credit(s); prereq [[BIOL 2003 or BIOL 1002 or BIOL 1009], CHEM 2301], or instr consent; Credit will not be granted if credit has been received for: BIOC 6021;

**Instructor:** Adolph, Kenneth W. (also: Adolphs, Kenneth W.)

**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

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

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

**Instructor:** Wilmot, Carrie M

**Description:** "Biochemistry I: structure, catalysis, metabolism in biological systems." The first 11 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 9 lectures deal with enzyme kinetics and mechanisms and binding interactions. The next 8 lectures discuss carbohydrates, lipid and membrane structures, transport processes. The final 12 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” Fourth 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:** 55% mid exam, 35% final exam, 10% problem solving.

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

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

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

**Instructor:** Livingston, Dennis M

**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 biological 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 Alberts et al., Garland Science, Fifth Edition (2008). Students possessing the Fourth Edition (2002) do not need to purchase the Fifth Edition.

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

**Grading:** 75% mid exam, 25% 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: Walters,Kylie J
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: 80% additional semester exams, 10% attendance, 10% class participation. 80% of grade is given to the 4 exams given during the semester (20% for each)
Exam Format: problem solving

**BIOC 4793W Directed Studies: Writing Intensive**
S-N only, 1-7 credit(s), max credits 7, 7 repeats 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 repeats 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 4993 Directed Studies**
S-N only, 1-7 credit(s), max credits 7, 7 repeats 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.

**BIOC 4994 Directed Research**
S-N only, 1-6 credit(s), max credits 42, 7 repeats allowed;
prereq instr consent, dept consent;
Instructor: STAFF
Description: Laboratory or field investigation of selected areas of research.

**BIOC 5309 Biocatalysis and Biodegradation**
3 credit(s); prereq chemistry through organic chemistry, knowledge of wordprocessing, e-mail, access to World Wide Web, access to college-level science library.; Credit will not be granted if credit has been received for: MICE 5309;
Instructor: Wackett,Lawrence Philip
Description: This course will teach students microbial catabolic metabolism, how to use the University of Minnesota Biocatalysis/Biodegradation Database (UM-BBD) and related Internet resources for microbial biotechnology, and how to author World Wide Web pages. The biochemistry covered is important for basic understanding of nature, biocatalysis leading to specialty chemical manufacture, and biodegradation of environmental pollutants. Under the supervision of the instructors, students will develop Web pages on microbial catabolic metabolism of environmental pollutants and learn to evaluate the information in web-based databases. Prerequisites are one year of organic chemistry; one course in biochemistry; basic familiarity with computers, the WWW, and electronic mail. Access to a college-level scientific library is desired. This course is taken by advanced undergraduates, graduate students, and working professionals. Instruction is completely over the Internet. There are no class meetings and students from all over the country have taken the class in previous offerings. Grades are determined by class listserver participation (10%), and the successful completion of nine assignments (90%).

**BIOC 5352 Biotechnology and Bioengineering for Biochemists**
A-F only, 3 credit(s); prereq [[3021 or 4331 or BIOC 3021 or MCIC 4111], [BIOL 3301 or MCIC 3301]] or instr consent; Credit will not be granted if credit has been received for: MICB 5352;
Instructor: Schmidt-Dannert,Claudia
Description: This class will provide a comprehensive introduction to major topics in biotechnology research and development. Topics that will be discussed range from isolation, recombinant production and engineering of biotechnological relevant proteins (e.g. industrial enzymes, biocatalysts and therapeutic proteins) to small molecule biotechnology. The latter topics include the production of important primary (e.g. amino acids, organic acids) and secondary (e.g. antibiotics and other bioactive molecules) metabolites, as well as strategies of metabolic pathway engineering and diversification in the "Omics" area to achieve increased production levels and for drug discovery purposes. Several guest lecturers from local biotechnology/biomedical companies will link class contents to practical applications and provide insights into actual industrial research and development.
Grading: 25% mid exam, 25% final exam, 25% reports/papers, 25% quizzes.

**BIOC 5444 Muscle**
3 credit(s); prereq Biol/Bioc 3021 or 4331 or Phsl 3061 or instr consent; Credit will not be granted if credit has been received for: PHSL 5444;
Instructor: Thomas,David D
Description: Introduction to physiology, biochemical regulation, and physical chemistry of muscle contraction. Prerequisites: undergraduate courses in biochemistry or physiology.
Style: 80% Lecture, 15% Discussion, 5% Laboratory.
Grading: 25% mid exam, 40% final exam, 35% reports/papers.
Exam Format: essay, problem solving

**BIOC 5528 Spectroscopy and Kinetics**
4 credit(s); prereq Intro physical chemistry or equiv; intro biochemistry recommended;
Instructor: Lipscomb,John D
Description: Biochemical dynamics from perspectives of kinetics and spectroscopy. Influence of structure, molecular interactions, and chemical transformations on biochemical reactions. Focuses on computational, spectroscopic, and physical methods. Steady-state and transient kinetics. Optical and magnetic resonance spectroscopies.
Style: 90% Lecture, 10% Discussion.
Grading: 50% mid exam, 30% final exam, 20% written homework. Two exams are give in the first half of the course. Graded problem sets and a final exam constitute the grading in the second half
Exam Format: Problem solving and essay

**BIOC 5532 Macromolecular Crystallography II: Techniques and Applications**
S-N only, 1 credit(s); prereq 5531;
Instructor: Ohlendorf,Douglas Henry
Description: Determining the structure of macromolecules by diffraction. Using software in macromolecular crystallography.

**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 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, organic acids) and secondary (e.g. antibiotics and other

This information is accurate as of 6/9/2008 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.

**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: Fuchs, James A 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. Style: 100% Lecture. Grading: 75% mid exam, 25% final exam.

**BIOC 8084 Research and Literature Reports**
S-N only, 1 credit(s), max credits 5, 5 repeats allowed; prereq Grad BMBB major or instr consent; Instructor: Harris, Reuben 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 repeats allowed; prereq Grad BMBB major or instr consent; Instructor: Kazlauskas, Romas J Description: Student may contact the instructor or department for information.

**BIOC 8184 Graduate Seminar**
S-N only, 1 credit(s), max credits 5, 5 repeats allowed; prereq grad BMBB major or DGS consent; Instructor: Lange, Alex John Description: Student may contact the instructor or department for information.

**BIOC 8216 Signal Transduction and Gene Expression**
3 credit(s); prereq 8002 or instr consent; Instructor: Kim, Do-Hyung Description: The BioC8216 is an introductory graduate-level course on cell signaling focused on the biological aspects of intracellular signal transduction, transcriptional regulation, and cellular/molecular techniques to study cell signaling. The course will provide introduction about the basic principles of signal transduction, several well-characterized cell signaling pathways and their disease relevance, and important, useful experimental approaches to study signal transduction, and discuss current issues. The first two weeks will be given for lectures on general introduction on signal transduction. After that, we will discuss several specific topics on cell signaling based on literatures. A general structure is that a lecture will be given for one day for general introduction on a specific cell signaling topic, which will be followed by discussion based on literature that will be assigned by each lecturer. Through employing this structure, the course will help expose students to basic, broad, and current knowledge on cell signaling mechanisms and their impacts on human diseases, and to experimental approaches on cell signaling studies. The course will require students to submit a proposal (4 pages) on a topic pertaining to cell signaling, and at the end of the course students will present their proposal. We will have two exams in the middle and at the end of the semester. The exams and proposals are purposed to help students to acquire the ability to solve problems pertaining to cell signaling. For further inquiry, please email dhkim@umn.edu Style: 40% Lecture, 10% Discussion, 10% Small Group Activities, 10% Student Presentation, 30% Guest Speakers. Grading: 25% mid exam, 25% final exam, 25% reports/papers, 20% in-class presentation, 5% class participation.

**BIOC 8401 Ethics, Public Policy, and Careers in Molecular and Cellular Biology**
S-N only, 1 credit(s), max credits 2; prereq Grad student in [BMBB or MCDB&G]; Instructor: Nelsestuen, Gary L Description: Ethics of scientific investigation from the viewpoint of western scientific enterprise. Relationship between science, culture, and public policies. Careers in molecular/cellular biology. Nontraditional career tracks. Invited speakers, case studies, small-group discussions, lectures. Style: 30% Lecture, 40% Discussion, 30% Guest Speakers. Grading: 50% attendance, 50% class participation. S/N only

**Bioethics, Center for**

**BTHX 5000 Topics in Bioethics**
1-4 credit(s), max credits 8; prereq Grad student or instr consent; Instructor: STAFF Description: Student may contact the instructor or department for information.

**BTHX 5325 Biomedical Ethics**
3 credit(s); prereq Grad student or instr consent; Instructor: DeBruin, PhD, Debra Ann 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: Miles, MD, Steven Haverson 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: Kahn, Jeffrey Paul 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: DeBruin, PhD, Debra Ann 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: Liaschenko, Joan 
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: Valapour, Maryam 
Description: Student may contact the instructor or department for information.

BTHX 8114 Ethical and legal Issues in Genetic Counseling
A-F only, 3 credit(s); prereq [MCDG MS, genetic counseling specialization] or instr consent ; 
Instructor: LeRoy, Bonnie S 
Description: Student may contact the instructor or department for information.

BTHX 8510 Gender and the Politics of Health
3 credit(s); prereq instr consent ; 
Instructor: Liaschenko, Joan 
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: 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: Bartels, Dianne Mary 
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: Kahn, Jeffrey Paul 
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: Liaschenko, Joan 
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: 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: Marshall, Mary Faith 
Description: Student may contact the instructor or department for information.

Bioinformatics
777 Mayo

BINF 5480 Bioinformatics Journal Club
S-N only, 1 credit(s), max credits 12, 6 repeats 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 choose 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 UM bioinformatics email list, and the paper they will present to the list about a week before their presentation. This is added to the BIJC webpage, and serves as an archive of past BI 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 sessions, you probably should not take this class.

BINF 5490 Topics in Bioinformatics
1-6 credit(s), max credits 12, 6 repeats 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 I: Evolutionary and Ecological Perspectives
4 credit(s); prereq Credit will not be granted if credit has been received for: 4009; Meets CLE req of Biological Sciences/Lab Core; meets CLE req of Environment Theme; 
Instructor: STAFF 
Description: This course designed specifically for non-CBS majors, covers general evolutionary and ecological principles, emphasizing biological diversity from genetic variation to the diversity of species and ecosystems. Topics include scientific inquiry, history of evolutionary thought, principles of genetics, the nature of variation, ecology of populations, behavioral ecology, human evolution, and genetic, evolutionary and ecological perspectives on issues concerning human diversity, human population growth, health, agriculture and conservation. Laboratory is in a 2-hour block, which is designed to involve students in investigation, problem solving, and discovery. 
Style: 65% Lecture, 35% Laboratory. 
Grading: 33% mid exam, 25% final exam, 15% reports/papers, 10% quizzes, 4% in-class presentation, 7% problem solving. 
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 course is designed for non-CBS majors seeking a broad survey of biology. An introduction to the major concepts and principles of modern biology. 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. Includes lab. Course satisfies the CLE lab distribution requirement in biology. Tutorial aid is available during certain hours each day.

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 2001 Career Planning for Biologists

S-N only, 1 credit(s);
Instructor: Fraasch,Nancy S
Description: Student may contact the instructor or department for information.

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 instr 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/Lab Core
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: 50% Lecture, 50% Laboratory.
Grading: 30% mid exam, 15% final exam, 50% laboratory evaluation, 5% problem solving.

BIOL 2002 Foundations of Biology for Biological Sciences Majors, Part II

S-N only, 2 credit(s);
Instructor: Fraasch,Nancy S
Description: Student may contact the instructor or department for information.
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 instr consent; calculus I or equiv recommended; Credit will not be granted if credit has been received for: BIOL 2002; Meets CLE req of Biological Sciences/Lab Core; Instructor: Wick, Susan M; 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: 50% Lecture, 50% Laboratory. Grading: 30% mid exam, 15% final exam, 50% laboratory evaluation, 5% problem solving.

BIOL 2002H Foundations of Biology for Biological Sciences Majors, Part II
A-F only, 5 credit(s); prereq [CHEM 1021 or equiv, CBS major] or instr consent; calculus I or equiv recommended; Credit will not be granted if credit has been received for: BIOL 2002; Meets CLE req of Biological Sciences/Lab Core; Instructor: Decker, Mark David; Description: Student may contact the instructor or department for information.

BIOL 2003 Foundations of Biology for Biological Sciences Majors, Part I
A-F only, 3 credit(s); prereq [2002 or 2002H or CBS major], concurrent enrollment in Bio 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. Style: 60% Lecture, 40% Laboratory. Grading: 55% mid exam, 37% final exam, 8% quizzes. Exam Format: multiple choice/practical.

BIOL 2012 General Zoology
4 credit(s); prereq One semester of college biology; Credit will not be granted if credit has been received for: BIOL 2005; Instructor: Palmer, Melissa L; 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 times 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 practicum exams quizzes knowledge of actual specimens. Texts are Hickman, Roberts, Keen, Larsen, and Eisenhour "Animal Diversity," 4th ed., and Hickman "Laboratory Studies in Animal Diversity," 4th ed. Books can be purchased as a packet at the bookstore. Style: 67% Lecture, 33% Laboratory. Grading: 33% mid exam, 33% final exam, 33% laboratory evaluation. Exam Format: Lecture exams require short answers based on specific knowledge of concepts, presented in lecture.

BIOL 2022 General Botany
A-F only, 3 credit(s); prereq One semester of college biology; Instructor: Biesboer, David D.; Description: Scientific principles of plant biology including the evolution, organization, function, growth and development, and reproductive biology of plants and plant-like organisms. Includes lab. Style: 60% Lecture, 40% Laboratory. Grading: 100% other evaluation. see #2: 60% lecture/40% laboratory. Exam Format: Multiple choice, short answer and essay.

BIOL 2032 General Microbiology With Laboratory
4 credit(s); prereq [1002 or 1009 or 2002], CHEM 1011; intended for non-microbiology majors; Credit will not be granted if credit has been received for: MICB 3301; Instructor: Maheswaran, Samuel K.; Description: This introductory course uses lectures, discussion and laboratory sessions to provide students with an overview of microbiology. Topic areas include bacterial structure and function; bacterial nutrition and growth; bacterial metabolism; bacterial genetics; biology of viruses and fungi; control of microorganisms; antimicrobial chemotherapy; microbial pathogenesis; immunology and immunity; applied microbiology; and medical microbiology. Target Audience: course is intended for microbiology and non-microbiology majors. Texts: Introduction to Microbiology, Authors John L. Ingraham and Catherine A. Ingraham, Second Edition. Laboratory Guide: Laboratory Manual: General Microbiology. Department of Veterinary Pathobiology, University of Minnesota. Style: 75% Lecture, 25% Discussion. Lectures with audiovisual aids. Grading: 25% final exam, 50% quizzes, 10% laboratory.
BIOL 3002 Plant Biology: Function
2 credit(s); prereq [1002 or 1009 or 2003 or equiv]. [[CHEM 1011, Concurrent registration is required (or allowed) in CHEM 3005] or AGRO 3005 or HORT 3005 or one semester chemistry with some organic content]
Instructor: Olszewski, Neil E
Description: You undoubtedly know that humans depend on plants for the oxygen that we breathe, our food and clothes, and for many of us, the houses in which we live. Of course this list can be expanded enormously (consider biofuels, wildlife habitat, the horticultural industry, medicines, etc.). This course examines how plants provide these services by investigating how they develop, grow, reproduce and interact with their environment. While plants may seem like simple organisms, they are in fact incredibly complex. Plants contain genomes that contain at least as many genes as the does the human genome, produce hormones that have profound effects on their growth and development, and obtain their nutrients entirely from the soil and atmosphere. Furthermore, with the aid of amazing partnerships with bacteria and fungi. Whether you are a student interested in how plants will respond to global climate change, how people can create sustainable agricultural systems, how scientists are using technology to create new crop varieties that are resistant to pathogens and tolerate poor soils and increasing temperatures, or are just interested in learning about the beautiful and fascinating mechanisms by which plants thrive, this course will provide you with a starting point for your future studies.
Style: 95% Lecture, 5% Film/Video.
Grading: 33% mid exam, 33% final exam, 33% quizzes.
Exam Format: Exams and quizzes are composed mostly of true/false, multiple choice or short answer questions.

BIOL 3005W Plant Function Laboratory
2 credit(s); prereq Concurrent enrollment 3002; Meets CLE req of Writing Intensive;
Instructor: Olszewski, Neil E
Description: This lab will combine traditional physiological and modern genetic based methodologies to study plant function. Labs designed to addressed questions concerning plant biochemistry, water and mineral transport, and hormone function will be performed. In addition, the students will initiate a scientific study on the effects of gene mutations on light perception by plants. The writing component will be largely based on novel research designed by the students. Required text (lab manual)- Experiments in Plant Physiology by Carol Reiss. Grading: 33% based on lab performance, record keeping and answering of questions concerning laboratory experiments; 33% based on the writing of 4 papers. Three of the papers will concern novel research designed by the students, the fourth will be a lab write up in the format of a published research paper; 33% based on four quizzes (short answer).
Style: 25% Lecture, 75% Discussion.

BIOL 3211 Animal Physiology
3 credit(s); prereq [1002 or 1009 or 2003 or equiv], CHEM 1021; Concurrent registration is required (or allowed) in 2005 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. 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.
Grading: 50% final exam, 50% other evaluation. midterm exams (25% each)
Exam Format: multiple choice

BIOL 3408W Ecology
3 credit(s); prereq [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; Meets CLE req of Environment Theme; meets CLE req of Writing Intensive;
Instructor: Alstad, Donald Norman
Description: Biology 3408W offers an introduction to the growth, regulation, and structure of plant and animal populations; biotic interactions between species and their effects on community diversity and succession; the trophic dynamics of ecosystems; cycling of carbon, nutrients, and energy; and ecological consequences of global change. It includes a series of lectures, and weekly subsection meetings for discussion, laboratory experiments, and computer simulation exercises designed to complement the lecture program and foster understanding of important conceptual issues. Biology 3408W has four principal learning objectives. First, the lecture program and section discussions introduce a wide range of ecological subjects and issues. Second, in lecture, lab experiments and via problem sets, we teach the quantitative and analytical skills required to conceptualize ecological dynamics. Third, because variances associated with measurement, replication, and treatment effects are part of all empirical ecology, we offer practice in spreadsheet data manipulation, descriptive statistics, the analysis of variance, and experimental design. Finally, because all scientists must convey the results of their work, we coach students through preparation and completion of two written lab reports, one on a
simple experiment of our design, and one on an experiment that student collaborators design for themselves.

**Style:** 40% Lecture, discussion, lab, and computer simulation exercises.

**Grading:** 30% mid exam, 25% final exam, 25% reports/papers, 20% other evaluation. Problem Sets

**Exam Format:** Problems, short essays, multiple choice and true/false.

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**BIOL 3409 Evolution**

**3 credit(s); prereq One semester college biology; Credit will not be granted if credit has been received for:** BIOL 5409; INSTRUCTOR: Lanyon, Scott Merrill

**Description:** This course explores the foundations of evolutionary biology. We will examine the divergence of biological forms through history with an emphasis on presently existing biological diversity. We will investigate the mechanisms of evolution and illustrate them with current research. A primary objective of the course is that students learn evolutionary principles and develop the capability of applying these principles to understand how the biological world has evolved and continues to evolve. The course includes lectures and weekly section meetings for labs, discussions, and computer simulation exercises. The course readings are drawn primarily from Freeman and Herron Evolutionary Analysis (3rd edition, 2003). This text is available in the bookstore and will be on reserve in Magrath (St. Paul Central) Library. The lab manual is also available at the bookstore.

**Style:** 35% Lecture, 25% Discussion, 40% Laboratory.

**Grading:** 30% mid exam, 25% final exam, 10% class participation, 20% laboratory evaluation, 20% problem solving.

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

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**BIOL 3411 Introduction to Animal Behavior**

**3 credit(s); prereq One semester college biology; Credit will not be granted if credit has been received for:** BIOL 3811; INSTRUCTOR: Stephens, David William

**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. 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 behavior, mating systems, altruism and other contemporary issues in behavioral evolution. The text is John Alcock's, "Animal Behavior: An Evolutionary Approach".

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

**Grading:** 25% mid exam, 25% final exam, 50% laboratory evaluation.

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

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**BIOL 3600 Directed Instruction**

**S-N only, 1-2 credit(s), max credits 6, 6 repeats allowed; prereq 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 class (BIOL 1020). Biology Colloquium Student leaders attend the weekly Biology Colloquium class and Student Leader meetings, set up small-group tours, evaluate student journals 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 been 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://biocsi.cbs.umn.edu/bcq or from the instructor.

**Style:** Must attend all class sessions of a BIOL 1020 section.

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**BIOL 3610 Internship: Professional Experience in Biological Sciences**

**S-N only, 1-6 credit(s), max credits 6, 6 repeats allowed; prereq Acceptance into CBS Internship Program, internship workshop, college consent;** INSTRUCTOR: Hanna, 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). Credit number 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, Medxox, Wildlife Rehabilitation Center, and many, many other organizations.

**Style:** Interns will meet as a group for 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 help them enhance their internship experience. S/N grading only.

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**BIOL 3700 Undergraduate Seminar**

**S-N only, 1 credit(s), max credits 3, 3 repeats allowed;** INSTRUCTOR: Wright, Robin

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

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**BIOL 3960H Honors Seminar**

**A-F only, 1 credit(s), max credits 2; prereq honors student, dept consent;** INSTRUCTOR: Wright, Robin

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

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**BIOL 4003 Genetics**

**3 credit(s); prereq [BIOC 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: Springer, Nathan Michael

**Description:** This course is a survey of genetics for biology majors. The goal of this course is for students to develop an understanding of the principles of genetics. This includes understanding the transmission of genetic information from one generation to the next, how genetic information is expressed in cells and organisms and how the information within a population can change over time. The course will also discuss the practical applications of genetics and the new methods being used to understand genetic inheritance and genetic control of traits. Topics that will be covered in the course include Mendelian genetics, dominance, epistasis, probability & chi-square, sex chromosomes, nucleic acid & chromosome structure, replication of DNA, linkage, crossing over, gene mapping, recombination in microorganisms, transposable genetic elements, variations in chromosome number and structure, regulation of gene expression, mutation and DNA repair mechanisms, molecular genetics, cloning and sequencing of genes, genomics, the genetics of cancer, the inheritance of complex traits & heritability, and population genetics.

**Style:** 90% Lecture, 10% Discussion. **Grading:** 40% final exam, 10% special projects, 50% additional semester exams.

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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: Shaw, Jocelyn E
Description: Student may contact the instructor or department for information.

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 3409;
Instructor: Lanyon, Scott Merrill
Description: This course explores the foundations of evolutionary biology. We will examine the divergence of biological forms through history with an emphasis on presently existing biological diversity. We will investigate the mechanisms of evolution and illustrate them with current research. A primary objective of the course is that students learn evolutionary principles and develop the capability of applying these principles to understand how the biological world has evolved and continues to evolve. The course includes lectures and weekly section meetings for labs, discussions, and computer simulation exercises. The course readings are drawn primarily from Freeman and Herron Evolutionary Analysis (3rd edition, 2003). This course is available in the bookstore and will be on reserve in the library.

This information is accurate as of 6/9/2008 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.
Biology, Society, and Environment

BSE 3355 Environmental Quality
3 credit(s);
Instructor: Squires,Roderick H
Description: Student may contact the instructor or department for information.

Biomedical Engineering

7-114 Basic Sciences & Biomedical Engineering

BMEN 1602 Biomedical Engineering Undergraduate Seminar II
1 credit(s); prereq 2501 or dept consent credit will not be granted if credit already received for: 2502;
Instructor: Tranquillo PhD,Robert T
Description: Student may contact the instructor or department for information.

BMEN 2101 Biomedical Thermodynamics
A-F only, 3 credit(s); prereq 2501, CHEM 1022, MATH 2373, Concurrent registration is required (or allowed) in MATH 2374;
Instructor: Sachs,Jonathan Nathaniel
Description: Student may contact the instructor or department for information.

BMEN 3101 Biomedical Transport Processes
A-F only, 4 credit(s); prereq Math 2374, Phys 1302, [BMEN upper div or dept consent];
Instructor: Tranquillo PhD,Robert T
Description: In terms of subject matter: 1) Learn fundamentals of mass, heat, and momentum transport as applied to biomedical problems 2) Develop laboratory experience illustrating these fundamentals 3) Learn numerical methods required to compute solutions of related equations. In terms of ABET accreditation: a) an ability to apply knowledge of mathematics, science, and engineering b) an ability to design and conduct experiments, as well as to analyze and interpret data c) an ability to design a system, component, or process to meet desired needs d) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice. e) an understanding of biology and physiology, and the capability to apply advanced mathematics (including differential equations and statistics), science, and engineering to solve problems at the interface of engineering and biology. f) the ability to make measurements on

and interpret data from living systems, addressing the problems associated with the interaction between living and non-living materials and systems.
Style: 60% Lecture, 20% Discussion, 20% Laboratory.
Grading: 45% mid exam, 27% final exam, 18% laboratory evaluation, 10% problem solving.
Exam Format: short answer and problems

BMEN 3301 Biомaterials
A-F only, 4 credit(s); prereq [Math 2263 or Math 2374], Phys 1302, [BMEN upper div or dept consent];
Instructor: Wang,Chun
Description: Student may contact the instructor or department for information.

BMEN 3401 Biomedical Systems Analysis
A-F only, 4 credit(s); prereq 3101, 3201;
Instructor: Netoff,Tay Ivan
Description: BMEN 3401: Biomedical Systems Analysis Designation as a ‘Required’ or ‘Elective’ course: Required Course (catalog) description: This course focuses on biomedical signal processing and control theory. It will cover time series and image processing, plant modeling and control theory. A laboratory section will be held every other week. Textbook: TBD
Systems: Unit impulse, Step function and Ramp functions Fourier Representation Laplace transform Z-Transform System identification System functions Pole-Zero plots Time series analysis: Reading computer formatted data for analysis Sampling theory FIR and IIR filters Autoregressive models & Moving Average models: ARMA,ARIMA models Power spectrum and short time power spectrum Windowing and multitapers Hilbert transform Tests for stationarity over time Cross correlation and Pre-whitening Principle component analysis Independent component analysis 2-d data analysis: Median, mean and standard deviation filters Feature extraction using dilation, erosion, openings and closings and skeletonizing Feature extraction using independent component analysis Control Theory: Inverse system design Open loop control Closed loop control PID control Stability analysis Robustness analysis Class/lab schedule: Lecture: 3 hours/week. Lab every other week Contribution of course to meeting the professional component: Engineering topics Relationship of course to program outcomes: High: a; Medium: c; Low: k Person who prepared this description and date of preparation: Thoden Netoff, 5/25/07

BMEN 4002W Biomedical Engineering Design II
A-F only, 3 credit(s); prereq 4001W; Meets CLE req of Writing Intensive;
Instructor: Habisch,Emily Gwen
Description: Continuation of BMEn 4001W. Students work in teams to design, test, and refine a device prototype. The teams present their work at a design show at the end of the semester.
Style: 92% Small Group Activities, 8% Guest Speakers.

BMEN 4710 Directed Research
A-F only, 1-4 credit(s), max credits 4, 1 repeat allowed;
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 repeat allowed;
Instructor: Odde,David John
Description: Student may contact the instructor or department for information.

BMEN 5101 Advanced Bioelectricity and Instrumentation
3 credit(s); prereq [IT upper div, grad student] or instr consent ;
Instructor: He PhD,Bin
Description: This course focuses on the generation of biological electricity, its measurement and modeling, as well as therapeutic use of electricity to treat cardiac and neural problems. It is

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suitable for advanced undergraduate and graduate students. Specific areas of emphasis include generation of electric fields, electric and magnetic fields in biological tissues, stimulating and recording electrodes, and cardiac pacing/defibrillation.

**BMEN 5212 Tissue Mechanics**
A-F only, 2 credit(s); prereq 5201 or AEM 5501; Instructor: Simha PhD, Narendra K
Description: Student may contact the instructor for information.

**BMEN 5311 Advanced Biomedical Transport Processes**
3-4 credit(s), max credits 4, 1 repeat allowed; prereq IT upper div or grad student or instr consent; [ChEn 5103 or ME 5342] recommended; Credit will not be granted if credit has been received for: ME 5381; Instructor: Barocas, Victor Howard
Description: This course focuses primarily on biological fluid flows and electrochemical transport. The four major sections of the course are o Intestinal and transvascular flow (Barocas, D'arcy's law, poroelasticity) o Cardiovascular flow (Barocas, Boundary Layer Theory, pulsatile flow) o Electrochemical transport (Siegel, Donnan equilibrium, Nernst-Planck eqn) o Special topics (Barocas, Drug delivery, blood oxygenation, intraocular flow) The special topics may change according to the interest of the class and instructor. Prerequisites: IT upper division undergraduate or graduate student, or consent of instructor An introductory fluids or transport course (e.g., BMEn 3101, ChEn 4002, ME 3322) is highly recommended.

**BMEN 5444 Muscle**
3 credit(s);
Instructor: Thomas, David D
Description: Description: Introduction to physiology, biochemical regulation, and physical chemistry of muscle contraction. Prerequisites: undergraduate courses in biochemistry or physiology.
Style: 80% Lecture, 15% Discussion, 5% Laboratory.
Grading: 25% mid exam, 40% final exam, 35% reports/papers.
Exam Format: essay, problem solving

**BMEN 5910 Special Topics in Biomedical Engineering**
2 credit(s), max credits 4;
Instructor: Saliternan MD, Steven S
Description: "Intro to BioMEMS and Medical Microdevices" is oriented to engineering and health sciences students. It includes the following topics: 1) microfabrication of silicon, glass and polymer materials; 2) microfluidics and electrokinetics; 3) sensors, actuators and drug delivery systems; 4) micro total-analysis systems and lab-on-a-chip devices; 5) introduction to clinical laboratory medicine; 6) detection and measuring systems; 7) genomics, proteomics, DNA and protein microarrays; 8) emerging applications in medicine, research and homeland security; 9) packaging, power systems, data communication and RF safety; and 10) biocompatibility and the ISO 10993 Standard. This course is ideal for senior undergraduate students; graduate students in biomedical, electrical, chemical, or mechanical engineering; materials science; and health related fields including biochemistry, molecular and cellular biology, physiology, genetics, laboratory medicine or medical school. The course content follows Dr. Saliternan’s textbook: "Fundamentals of BioMEMS and Medical Microdevices" (SPIE and Wiley Interscience).
Style: 70% Lecture, 10% Discussion, 15% Student Presentation, 5% Field Trips. Tour of the Nanofabrication Center and Characterization Facility
Grading: 40% mid exam, 40% final exam, 10% in-class presentation, 10% class participation.
Exam Format: Essay

**BMEN 5920 Special Topics in Biomedical Engineering**
2-3 credit(s), max credits 6;
Instructor: Akkin, Taner
Description: Course Description: The objective of this course is to develop knowledge in the area of biomedical optical imaging and sensing. Topics include basic optical principles, laser-tissue interaction, detector design and noise analysis, interferometry, spectroscopy, and optical imaging. Methods will range from the simple Beer’s Law to the Monte Carlo modeling of light transport in scattering tissue, and from the basic Michelson interferometer to the state-of-the-art non-invasive optical coherence tomography of tissues. Flow measurement, dye imaging, fluorescence, birefringence and non-linear microscopy will be introduced. Students will get an opportunity to visit various laboratories on campus to see optical instruments being developed for biomedical imaging and sensing applications.
Style: 85% Lecture, 5% Student Presentation, 10% Guest Speakers.
Grading: Homework (25%) Exam-I (25%), Exam-II (25%), Final Exam/Project (25%)

**BMEN 8402 New Product Design and Business Development**
A-F only, 4 credit(s); prereq ME 8222, 8401; Credit will not be granted if credit has been received for: ME 8222; Instructor: Adams, Carl Robert
Description: Student may contact the instructor or department for information.

**BMEN 8602 Biomedical Engineering Seminar**
S-N only, 1 credit(s);
Instructor: Barocas, Victor Howard
Description: Student may contact the instructor or department for information.

**BMEN 8900 Special Topics in Biomedical Engineering**
A-F only, 1-4 credit(s), max credits 6;
Instructor: Shen, Wei
Description: This 8000-level graduate course is designed to acquaint students with fundamental concepts and state-of-the-art tools in polymer science and engineering to solve problems in biology and medicine. Basics of polymer physics and approaches of polymer synthesis will be covered. Chemical, physical, and biological principles governing the design and engineering of polymeric biomaterials will be discussed. The concept of molecular engineering will be emphasized. At the end of this course, students are expected to obtain the skills to analyze problems in biology and medicine and provide strategies of polymeric-biomaterial design and synthesis to solve the problems.

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**Biophysical Sciences**
B230 Mayo Memorial Building

**BPHY 5173 Medical and Health Physics of Radiation Therapy**
3 credit(s); prereq 5170 or instr consent; Credit will not be granted if credit has been received for: TRAD 7173; Instructor: Gerbi PhD, Bruce John
Description: Student may contact the instructor or department for information.

**BPHY 5174 Medical and Health Physics of Imaging II**
3 credit(s); prereq 5170 or instr consent; Credit will not be granted if credit has been received for: TRAD 7174; Instructor: Ritenour, E Russell
Description: Student may contact the instructor or department for information.

**Bioproducts and Biosystems Engineering**

**BBE 1002 Wood and Fiber Science**
A-F only, 3 credit(s);
Instructor: Tze, William Tai Yin
Description: The anatomical/cellular structure, physical, mechanical, and chemical properties of wood and other plant
biomass. Impact of tree growth and forest management on wood quality, and implications of whole-tree utilization. Measurement and evaluation of wood raw materials. Common processing/conversion technologies for wood materials and other plant fibers, and properties of the resulting lumber, composite, paper, chemical, and energy products. This course is designed for students majoring in bioproducts and forest resources, or students interested in the fundamental science, technology, and utilization of wood and other plant materials.

**Style:** 85% Lecture. 15% Class activities involving team work to discuss and answer questions on pre-assigned reading

**Grading:** 25% mid exam, 30% final exam, 20% quizzes, 25% problem solving.

**Exam Format:** Multiple choice, short answers, calculations

**BEB 1003 Wood and Fiber Science Lab**

A-F only, 1 credit(s); prereq recommend concurrent enrollment in BP 1002;

**Instructor:** Seavey, Robert Thomas

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

**BEB 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

**BEB 3093 Directed Studies**

1-5 credit(s), max credits 5, 1 repeat 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.

**BEB 3393 Directed Study**

1-3 credit(s), max credits 12, 4 repeats 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.

**BEE 3306 Industrial Internship (Industrial Assignment)**

A-F only, 1 credit(s); prereq BEB 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.

**BEE 4013 Transport in Biological Systems**

A-F only, 4 credit(s); prereq [3013 or Concurrent registration is required (or allowed) in 3013 or ChEn 3701], CE 3502, [ME 3331 or ChEn 4101], upper div IT;

**Instructor:** Nieber, John Little

**Description:** The course involves the application of the principles of thermodynamics, fluid flow, heat transfer and mass transfer to solving problems of biological processes and biomaterials at the cellular, organism and system level. Application problems include those related to analysis of biological systems, agricultural production, food processing and bioprocessing, biomaterials design, environmental protection, and natural resources management. After completion students should be able to: 1) Derive constitutive relationships for fluid flow, energy and mass transport in biological systems; 2) Formulate equilibrium thermodynamic relationships for states of thermal energy and mass in biological systems; 3) Formulate the governing equations for fluid flow, energy and mass transport in biological systems; 4) Recognize analytical solutions to well-posed mathematical statements related to fluid flow, and energy and mass transport in biological systems; 5) Understand the fundamentals and applications of discrete methods such as finite differences for solving well-posed mathematical statements related to fluid flow, and energy and mass transport in biological systems; 6) Solve practical problems involving fluid flow, energy and mass transport in biological systems. Fundamentals presented in the lectures and textbook are balanced with practical applications. In addition to homework assignments and exams, students develop designs for two practical problems.

**Style:** 75% Lecture. 25% Problem Solving

**Grading:** 20% mid exam, 20% final exam, 30% special projects, 10% laboratory evaluation, 20% problem solving.

**Exam Format:** Problem solving

**BEE 4302 Organisms Impacting Bio-based Products**

3 credit(s); prereq 1002 or WPS 1301 or instr consent ;

**Instructor:** Schilling, Jonathan S.

**Description:** Class Description: I. 4/5302 Course Rationale: Bioproducts such as wood and wood composites are susceptible to degradation by biological organisms. Smart use and treatment of bioproducts can increase their service life and save money, but this requires familiarity with potential degraders. Understanding biodegradative pathways is also helping researchers develop novel means for processing raw materials and for bioengineering products. II. Course Description: This course explains organisms that modify or deteriorate lignocellulosic bioproducts, covers avoidance and control of these organisms, and explores their potential utilization in biotechnology. This course is required for all undergraduate students in the Department of Bioproducts and Biosystems Engineering.

**Style:** 75% Lecture. 15% Discussion. Hands on training

**Grading:** 60% mid exam, 20% final exam, 10% other evaluation, 10% attendance.

**Exam Format:** 3 midterm exams (multi-format = information comprehension + application)

**BEE 4355 Design of Wood Structures**

3 credit(s); prereq 3001 or WPS 4301 or CE student or instr consent ;

**Instructor:** Johnson, Kenneth A

**Description:** This course will cover the design of a wide range of timber structures starting with basic strength of material concepts unique to wood-based products and leading through all the design procedures used in practice today. Design of Wood Structures will now be based on the Load and Resistant Factored Design (LRFD) methodology. This approach to structural design is consistent with the new International Building Code (IBC), the new National Design Specifications for Wood Construction (NDS), and with the Special Design Provisions for Wind and Seismic (SDPWS). LRFD has become the most widely used design ideology for most of the common construction materials. Most of the current building code provisions are based on design calculations in the LRFD format. All of the necessary support documents for the inclusion of wood design to be in the LRFD format are now in place and widely available. While calculations in the LRFD format will be the primary focus of this course, some design examples will be included in a dual format of Allowable Stress Design (ASD) and LRFD. The use of LRFD for the design of wood components, makes the integration of those wood components into structures utilizing components
made of other materials that have been sized using LRFD much more seamlessly.

BBE 4402 Bio-based Products Engineering Lab I
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 5402; Instructor: Tschirner, Ulrike Waltrau
Description: Student may contact the instructor or department for information.

BBE 4412W Bio-based Products Manufacturing and Applications II
3 credit(s); prereq 1002, upper div BP; Credit will not be granted if credit has been received for: BBE 5412; Meets CLE req of Writing Intensive; Instructor: Seavey, Robert Thomas

BBE 4413 Systems Approach to Residential Construction
3 credit(s); prereq [3411, upper div] or instr consent; Instructor: Huelman, Patrick Henry
Description: This course will investigate the dynamic and interrelated issues of energy, moisture control, and indoor air quality in residential buildings. The emphasis is on design, construction, and operational aspects of the house to provide an energy-efficient, durable structure, and a healthy living environment. The course will build skills in the following areas: 1. Fundamentals of heat, air, and moisture transport 2. Strong understanding of psychrometrics 3. how to perform building energy calculations 4. Solid understanding of basic building materials and assemblies 5. Overview of residential mechanical systems 6. Principles for good indoor air quality. Style: 80% Lecture, 20% Discussion. Grading: 60% mid exam, 10% final exam, 15% special projects, 15% written homework.

BBE 4416 Building Testing and Diagnostics
2 credit(s); prereq 4413W or WPS 4333; Credit will not be granted if credit has been received for: BBE 5416; 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 1/3 of the course will be fairly structured to cover critical content. Another 1/3 will be more loosely organized with guest lecturers to provide a broad array of viewpoints and expertise from a private sector. The final 1/3 will be field visits and/or labs. This course will convert your basic building science knowledge into action (in both a qualitative and quantitative manner) to resolve energy, moisture, and indoor air quality issues in residential buildings. Style: 50% Lecture, 10% Discussion, 5% Student Presentation, 15% Field Trips, 20% Guest Speakers. Grading: 40% mid exam, 30% written homework, 30% in-class presentation.

BBE 4491 Senior Topics: Independent Study
1-4 credit(s), max credits 4, 1 repeat 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 4502W BBE Capstone Design
A-F only, 4 credit(s); prereq [2113 or 4501], sr; Meets CLE req of Writing Intensive; Instructor: Wang, Ping
Description: Student may contact the instructor or department for information.

BBE 4504W Bio-based Products Development and Management
A-F only, 3 credit(s); prereq Jr or sr or instr consent; Meets CLE req of Writing Intensive; Instructor: Smith, Tim
Description: Student may contact the instructor or department for information.

BBE 4533 Agricultural Waste Management Engineering
A-F only, 3 credit(s); prereq 3023, upper div IT; Instructor: Clanton, Chuck
Description: Sources and characteristics of agricultural wastes including livestock, food processing, and domestic wastes. Physical, biological, chemical, rheological and microbiological properties. Effects on the environment. Collection, storage, treatment (aerobic and anaerobic) and utilization/disposal. Land application. Course objectives/outcomes: This course is designed for senior level students in engineering to provide fundamentals in agricultural waste management and the concepts involved for design of waste management systems that are environmentally sound. Style: 55% Lecture, 15% Discussion, 30% Laboratory. Grading: 40% final exam, 10% reports/papers, 30% quizzes, 5% in-class presentation, 10% laboratory evaluation, 5% problem solving. Exam Format: Short answer and problems.
centrifugation, separation, absorption, extraction, and chromatography will be covered. Applications of these bioprocess engineering principles in various biological systems, biorefining, and conversion of biomass into energy, biochemicals, and biomaterials will also be discussed. Style: 80% Lecture, 20% Discussion. Grading: 30% mid exam, 25% final exam, 15% reports/papers, 30% problem solving. Exam Format: Multiple choice, short problems

BBE 4733 Renewable Energy Technologies
A-F only, 3 credit(s); prereq 4013 or equiv or instr consent ; Instructor: Ruan PhD, R. Roger Description: This course provides fundamentals to the current and emerging technologies for renewable energy production and uses. Issues regarding national energy security and environmental, economic and societal impacts of renewable energy will also be addressed. Students will learn the basic principals of various renewable energy technologies, such as solar thermal energy, solar photovoltaics, biomass energy, wind energy, hydroelectricity, tidal power, and geothermal energy, an understanding of basic characteristics of renewable resources, key methods for efficient production and use of renewable energy, an understanding of current and probable future developments in renewable energy technologies, impact of renewable energy on sustainable development. Style: 70% Lecture, 5% Student Presentation, 5% Field Trips, 20% Guest Speakers. Grading: 30% mid exam, 25% final exam, 15% reports/papers, 30% written homework.

BEE 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.

BEE 4900 Intern Reports
S-N only, 2 credit(s), max credits 4; prereq IT or COAFAES 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.

BEE 5095 Special Problems
1-5 credit(s), max credits 5, 1 repeat 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.

BEE 5202 Wood and Fiber Science
A-F only, 3 credit(s); Instructor: Tze, William Tai Yin Description: The anatomical/cellular structure, physical, mechanical, and chemical properties of wood and other plant biomass. Impact of tree growth and forest management on wood quality, and implications of whole-tree utilization. Measurement and evaluation of wood raw materials. Common processing/conversion technologies for wood materials and other plant fibers, and properties of the resulting lumber, composite, paper, chemical, and energy products. This course is designed for students majoring in bioproducts and forest resources, or students interested in the fundamental science, technology, and utilization of wood and other plant materials. Style: 85% Lecture, 15% Class activities involving team work to discuss and answer questions on pre-assigned reading. Grading: 25% mid exam, 30% final exam, 20% quizzes, 25% problem solving. Exam Format: Multiple choice, short answers, calculations

Instructor: Schilling, Jonathan S. Description: Class Description: I. 4/5302 Course Rationale: Bioproducts such as wood and wood composites are susceptible to degradation by biological organisms. Smart use and treatment of bioproducts can increase their service life and save money, but this requires familiarity with potential degraders. Understanding biodegradative pathways is also helping researchers develop novel means for processing raw materials and for bioengineering products. II. Course Description: This course explains organisms that modify or deteriorate lignocellulosic bioproducts, covers avoidance and control of these organisms, and explores their potential utilization in biotechnology. This course is required for all undergraduate students in the Department of Bioproducts and Biosystems Engineering. Style: 75% Lecture, 15% Discussion. Hands on training. Grading: 80% mid exam, 20% final exam, 10% class participation, 10% other evaluation, attendance Exam Format: 3 midterm exams (multi-format = information comprehension + application)

BEE 5402 Bio-based Products Engineering Lab I
A-F only, 1 credit(s); prereq Grad student or instr consent ; Credit will not be granted if credit has been received for: BBE 4402; Instructor: Tschirner, Ulrike WIttrau Description: Student may contact the instructor or department for information.

BEE 5412 Manufacturing and Applications of Bio-based Products

Instructor: Schilling, Jonathan S. Description: Class Description: I. 4/5302 Course Rationale: Bioproducts such as wood and wood composites are susceptible to degradation by biological organisms. Smart use and treatment of bioproducts can increase their service life and save money, but this requires familiarity with potential degraders. Understanding biodegradative pathways is also helping researchers develop novel means for processing raw materials and for bioengineering products. II. Course Description: This course explains organisms that modify or deteriorate lignocellulosic bioproducts, covers avoidance and control of these organisms, and explores their potential utilization in biotechnology. This course is required for all undergraduate students in the Department of Bioproducts and Biosystems Engineering. Style: 75% Lecture, 15% Discussion. Hands on training. Grading: 80% mid exam, 20% final exam, 10% class participation, 10% other evaluation, attendance Exam Format: 3 midterm exams (multi-format = information comprehension + application)

This information is accurate as of 6/9/2008 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.

BBE 5413 A Systems Approach to Residential Construction
3 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: WPS 4333; Instructor: Huelman, Patrick Henry
Description: This course will investigate the dynamic and interrelated issues of energy, moisture control, and indoor air quality in residential buildings. The emphasis is on design, construction, and operational aspects of the house to provide an energy-efficient, durable structure, and a healthy living environment. The course will build skills in the following areas: 1. Fundamentals of heat, air, and moisture transport 2. Strong understanding of psychrometrics 3. How to perform building energy calculations 4. Solid understanding of basic building materials and assemblies 5. Overview of residential mechanical systems 6. Principles for good indoor air quality
Style: 80% Lecture, 20% Discussion.
Grading: 60% mid exam, 10% final exam, 15% special projects, 15% written homework. For graduate credit, final project includes additional research, synthesis, and presentation.

BBE 5416 Building Testing & Diagnostics
2 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: BBE 4416; 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 1/3 of the course will be fairly structured to cover critical content. Another 1/3 will be more loosely organized with guest lecturers to provide a broad array of viewpoints and expertise from a private sector. The final 1/3 will be field visits and/or labs. This course will convert your basic building science knowledge into action (in both a qualitative and quantitative manner) to resolve energy, moisture, and indoor air quality issues in residential buildings.
Style: 50% Lecture, 10% Discussion, 5% Student Presentation, 15% Field Trips, 20% Guest Speakers.
Grading: 40% mid exam, 30% written homework, 30% in-class presentation. For graduate credit, final project includes additional research, synthesis, and presentation.

BBE 5480 Special Topics
3-4 credit(s), max credits 12, 3 repeats allowed; prereq Sr or grad student; Credit will not be granted if credit has been received for: BBE 3480; Instructor: Chaplin, Jonathan
Description: This course is intended to provide engineering students with a background in the design of off-road vehicles. Off-road vehicles include SUVs, tractors, construction equipment, ATVs and motorcycles. The course covers the development of off-road vehicles, engine performance, vehicle testing, electrical and electronic systems, vehicle traction, suspension, and safety and human factors. During the course the students are encouraged to become involved in a national engineering design competition in which a vehicle is designed, constructed and tested. The evaluation includes manufacturability, engineering safety, serviceability, and performance criteria including traction performance and maneuverability. The idea is to create learning communities within the class that will work on multiple aspects of an off-road vehicle design.
Style: 80% Lecture, 20% Small Group Activities.
Grading: 20% mid exam, 25% final exam, 10% reports/papers, 20% special projects, 10% quizzes, 15% written homework.

BBE 5504 Bio-based Products Development and Management
A-F only, 3 credit(s); prereq Grad student or instr consent; Instructor: Smith, Tim
Description: Student may contact the instructor or department for information.

BBE 8094 Advanced Problems and Research
2-6 credit(s), max credits 6, 1 repeat allowed; prereq 5095; Instructor: Nieber, John Little
Description: Student may contact the instructor or department for information.

BBE 8300 Research Problems
1-10 credit(s), max credits 10, 10 repeats allowed; prereq instr consent; Instructor: Schmidt, Elmer Lyle
Description: Student may contact the instructor or department for information.

BBE 8300 Research Problems
1-10 credit(s), max credits 10, 10 repeats allowed; prereq instr consent; Instructor: Seavey, Robert Thomas
Description: Student may contact the instructor or department for information.

BBE 8300 Research Problems
1-10 credit(s), max credits 10, 10 repeats allowed; prereq instr consent; Instructor: Sarkanen, Simo
Description: Student may contact the instructor or department for information.

BBE 8300 Research Problems
1-10 credit(s), max credits 10, 10 repeats allowed; prereq instr consent; Instructor: Tschirner, Ulrike Waltrau
Description: Student may contact the instructor or department for information.

BBE 8300 Research Problems
1-10 credit(s), max credits 10, 10 repeats allowed; prereq instr consent; Instructor: Ramaswamy, Shri
Description: Student may contact the instructor or department for information.

BBE 8300 Research Problems
1-10 credit(s), max credits 10, 10 repeats allowed; prereq instr consent; Instructor: Petersen, Harlan D
Description: Student may contact the instructor or department for information.

BBE 8300 Research Problems
1-10 credit(s), max credits 10, 10 repeats allowed; prereq instr consent; Instructor: Bowyer, Jim L.
Description: Student may contact the instructor or department for information.

BBE 8300 Research Problems
1-10 credit(s), max credits 10, 10 repeats allowed; prereq instr consent; Instructor: Huelman, Patrick Henry
Description: Student may contact the instructor or department for information.

BBE 8300 Research Problems
1-10 credit(s), max credits 10, 10 repeats allowed; prereq instr consent; Instructor: Smith, Tim
Description: Student may contact the instructor or department for information.
BBE 8300 Research Problems
1-10 credit(s), max credits 10, 10 repeats allowed; prereq instr consent; 
Instructor: Tze, William Tai Yin
Description: Student may contact the instructor or department for information.

BBE 8300 Research Problems
1-10 credit(s), max credits 10, 10 repeats allowed; prereq instr consent; 
Instructor: Suh, Sangwon
Description: Student may contact the instructor or department for information.

BBE 8300 Research Problems
1-10 credit(s), max credits 10, 10 repeats allowed; prereq instr consent; 
Instructor: Wang, Ping
Description: Student may contact the instructor or department for information.

BBE 8306 Graduate Seminar
2 credit(s), max credits 6, 3 repeats allowed; 
Instructor: Sarkanen, Simo
Description: Student may contact the instructor or department for information.

BBE 8523 Coupled Heat, Moisture, and Chemical Transport in Porous Media
A-F only, 3 credit(s); prereq [CSci 5301 or equiv], [Math 5512, Math 5513] or equiv], [Soil 5232 or equiv], computer programming; 
Instructor: Nieber, John Little
Description: Student may contact the instructor or department for information.

Business Administration
1-505 Carlson School of Management

BA 1910W Freshman Seminar, WI
A-F only, 3 credit(s), max credits 9, 3 repeats allowed; 
prereq freshman; Meets CLE req of Writing Intensive; 
Instructor: Whitman, Andrew Franklin
Description: Student may contact the instructor or department for information.

BA 3900 Topics
A-F only, 1-4 credit(s), max credits 12, 4 repeats allowed; 
Instructor: Littlefield, Holly A
Description: The goal of this course is to help students understand the impact of culture and communications on business interactions around the world and to help them develop cross-cultural analytic and adaptation skills. This course will address major cultural differences in communication theory and practice around the world by looking at how cross-cultural communications can and do affect the methods and outcomes of international business. It will examine patterns of organizational structures and hierarchies; value systems and beliefs; language and other forms of communications, and it will explore the ways that business interactions are impacted by cultural dimensions.

BA 4000H Honors Seminar
A-F only, 4 credit(s); prereq honors student, sr; 
Instructor: Parente, Stephen T
Description: Student may contact the instructor or department for information.

BA 4503 Carlson Ventures Enterprise
OPT No Aud, 2 credit(s), max credits 6, 3 repeats allowed; 
prereq Concurrent registration is required (or allowed) in MBA 6503, CSOM [jr or sr], approved application; 
Instructor: Sapienza, Harry Jack
Description: Student may contact the instructor or department for information.

BA 4504 Carlson Consulting Enterprise
OPT 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: Miller, Philip Jordan
Description: Student may contact the instructor or department for information.

Business and Industry Education
425 VoTech Building

BIE 1396 Supervised Career and Technical Education Teaching
S-N only, 4 credit(s); prereq college consent; 
Instructor: Stertz, 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 3151 Technical Development: Advanced
1-32 credit(s), max credits 32, 12 repeats allowed; prereq instr consent; 
Instructor: Stertz, Tom
Description: Individualized advanced technical development in construction, communication technology, manufacturing, power and energy, and transportation.

BIE 3993 Directed Study: BIE
1-4 credit(s), max credits 4, 1 repeat allowed; 
Instructor: Stertz, Tom
Description: Student may contact the instructor or department for information.

BIE 5013 Spreadsheet Analysis Using Computers
3 credit(s); prereq 5011 or equiv; 
Instructor: Lambrecht, Judith J.
Description: Student may contact the instructor or department for information.

BIE 5015 Integrated Computer Applications in Business and Marketing Education
3 credit(s); prereq [5011, 5012, 5013, 5014] or equiv; 
Instructor: Anderson, Michelle M
Description: This course is intended to engage ADVANCED students in the use of realistic business microcomputer problems requiring the integration of two or more application packages. While completing these problems, consideration will be given to the pedagogical issues of both learning advanced microcomputer application capabilities, and teaching similar applications to designated groups of learners.
Style: 25% Lecture, 75% Laboratory.
Grading: 15% mid exam, 15% final exam, 10% in-class presentation, 10% class participation, 50% laboratory evaluation.
Exam Format: Computer problem-solving

BIE 5151 Technical Development: Specialized
A-F only, 1-12 credit(s), max credits 12, 12 repeats allowed;
preq instr consent;
Instructor: Stertz,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 5463 Methods in Teaching Keyboarding and Word Processing
A-F only, 2 credit(s);
Instructor: Cherry, Jennifer E
Description: Style: 25% Lecture, 25% Discussion, 25% Small Group Activities, 10% Student Presentation, 5% Demonstration, 10% Guest Speakers.
Grading: 20% module exam, 20% final exam, 20% reports/papers, 20% special projects, 20% in-class presentation.

BIE 5596 Occupational Experience in Business and Industry
S-N only, 1-10 credit(s), max credits 10, 1 repeat allowed; preq instr consent;
Instructor: Stertz,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 5597 Internship: Business and Industry Education
S-N only, 1-8 credit(s), max credits 12, 12 repeats allowed; preq instr consent;
Instructor: Anderson, Orkideh Mohajeri
Description: Students may contact the instructor or department for information.

BIE 5605 Critical Issues in Business and Industry
3 credit(s);
Instructor: Lambrecht, Judith J.
Description: Students may contact the instructor or department for information.

BIE 5796 Field Based Projects in Business and Industry
S-N only, 1-4 credit(s), max credits 4, 1 repeat allowed; preq instr consent;
Instructor: Stertz, Tom
Description: Students may contact the instructor or department for information.

BIE 5993 Directed Study in Business and Industry
1-4 credit(s), max credits 4, 1 repeat allowed;
Instructor: Stertz, Tom
Description: Students may contact the instructor or department for information.

BIE 8995 Research Problems: Business and Industry
S-N only, 3-6 credit(s), max credits 6, 1 repeat allowed; preq Adviser approval;
Instructor: Stertz, Tom
Description: Students may contact the instructor or department for information.

Carlson Executive MBA
2-210 CarlSMgmt

CMBA 5531 Financial Management
A-F only, 3 credit(s);
Instructor: Gahlon, James M
Description: Students may contact the instructor or department for information.

Center for Spirituality and Healing
Mayo Code 505; C592 Mayo

CSPH 1001 Principles of Holistic Health and Healing
S-N only, 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. 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. holistic health theory and how holistic health is incorporated into the health care delivery system; 5. practical application and integration of holistic health into daily personal life for optimal health and well-being. Class will be interactive and students will reflect on the application of the principles to their daily living as journaling assignments each week; a key component of class is understanding how we can be more balanced as students in US society. Students will also turn in a reflection in each class, taking into account their readiness to learn and key learnings from the class. Most readings will be from the CSPH website modules.
Style: 50% Lecture, 50% Discussion.
Grading: 50% journal, 40% class participation, 10% other evaluation. Final journal is worth 50 of 350 points
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
1-4 credit(s), max credits 12, 4 repeats allowed; preq Jr or Sr or grad student or instr consent;
Instructor: Heiderscheid, Annette Lynne
Description: Student may contact the instructor or department for information.

CSPH 5101 Introduction to Complementary Healing Practices
3 credit(s); preq 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); preq Jr or Sr or grad student or instr consent;
Instructor: Towey, Sue Mary
Description: The initiation of a healer in ancient cultures was a rigorous process that included a personal journey of inner development and transformation that paralleled the learning of the cognitive and physical healing techniques. This course will introduce the health science student to the concept of the individual transformational journey. The science of psychoneuroimmunology (PNI) and mind-body-spirit approaches will be explored through a variety of methods including lecture, scientific literature review, meditation, imagery, journal writing and social support through group interaction. The students will have an opportunity to explore various aspects of self-knowledge, self-awareness, transpersonal (non-local) experiences and the paradoxical mysteries that will prepare them for their student and personal lives.

This information is accurate as of 6/9/2008 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 5115 Cultural Knowledge, Health, and Contemporary Cultural Communities
3 credit(s); prereq Jr or sr or grad student or instr consent ; Instructor: Brady,Linda J
Description: The central goal of this course is that students understand how their personal cultural experience affects their view of health, illness, and healing and how this impacts professional practice. Students will learn in a setting of contact with the wisdom of cultural communities based on a curriculum developed and field tested at the Cultural Wellness Center. We will explore the cultural construct underpinning the medical system, the role of culture in the interaction between practitioner and patient, and the role of the reconnection to cultural heritage in healing.

CSPH 5201 Spirituality and Resilience
2 credit(s); prereq Jr or sr or grad student or instr consent; Instructor: Marshall,Kathy M
Description: In-depth exploration of resilience, spirituality, and the link between them. Specific applications of the resilience/health realization model to students' personal and professional lives. Relevant literature, theory and research will be explored.

CSPH 5215 Forgiveness and Healing: A Journey Toward Wholeness
2 credit(s); prereq Jr or sr or grad student or instr consent; Instructor: Umbreit,Mark S
Description: This course will examine the impact of forgiveness on the process of interpersonal and intra-personal healing; as well as healing of conflict and trauma at the intergroup level. Forgiveness and healing will be examined in the context of intense interpersonal and intrapersonal conflicts in multiple health care and social work settings, including in families, between physicians and nurses, between patients/clients and nurses/social workers, within communities, among friends, between co-workers, or within ourselves. This course is designed to provide a basic understanding of the central elements of forgiveness and healing in the context of multiple health care and social work settings. The concepts of forgiveness and healing will be examined from multiple spiritual and secular traditions. The underlying philosophical elements of forgiveness and healing will be critically assessed and beliefs and rituals from numerous indigenous and European traditions will be presented and examined. The focus will be upon gaining a more grounded understanding of the process of forgiveness and its potential impact upon emotional and relational healing. The concepts of forgiveness and healing will be addressed in a very broad and inclusive manner, with no assumptions made related to their specific cultural context or meaning. Empirical studies that have examined the impact of forgiveness upon emotional and physical healing will be reviewed.

CSPH 5226 Advanced Meditation: Body, Brain, Mind, and Universe
1 credit(s); prereq [5225, Jr or sr or grad student]] or instr consent; Instructor: Storlie,Erik Fraser
Description: Students will work to integrate meditation practice into daily life, cultivating awareness of the fundamental oneness of body, brain, mind, and universe. Attention will be given to mind-body interactions in health, the “hard problem” of consciousness in brain science, and the emergence of compassion, wisdom, and healing in non-discursive awareness.

CSPH 5301 Cultures, Faith Traditions, and Health Care
A-F only, 2 credit(s); prereq Jr or sr or grad student or instr consent; Instructor: Berg,David F
Description: This course, which is open to all AHC students and seminar participants, examines the cultural and spiritual implications of health care practices of selected native and immigrant populations in Minnesota. The course focuses on the clinical implications of these practices and addresses the inherent personal and professional conflicts for delivery of competent care to culturally/spiritually diverse groups by those trained in the Western health care system. This course requires students to meet with and participate as much as possible with another culture.

CSPH 5311 Introduction to Traditional Chinese Medicine
A-F only, 2 credit(s); prereq Jr or sr or grad student or instr consent; Instructor: Hafner,Christopher Jam
Description: Student may contact the instructor or department for information.

CSPH 5431 Functional Nutrition: An Expanded View of Nutrition, Chronic Disease, and Optimal Health
2 credit(s); prereq [Jr or sr or grad student] in Health Sciences or instr consent; Instructor: Denton,Carolyn Ward
Description: This course will present a novel approach to the principles of nutrition as they relate to optimal health and the prevention, control or intervention in a disease process. This is a model of nutrition application that complements and expands beyond normal growth and development, an approach that attempts to reduce chronic disease by looking for underlying factors or triggers of disease. This model of nutrition considers system dysfunction in a pre-disease state and looks for ways to apply nutrition and restore function. The purpose of the course is to provide an overview of this novel application of nutrition. The course will emphasize the importance of nutrition as a component of self-care.

CSPH 5501 Clinical Aromatherapy: Therapeutic Use of Plant Essential Oils
3 credit(s); prereq Jr or sr or grad student or instr consent; intended for students in health sciences or practicing health professionals; [basic science, health science knowledge, computer skills, internet skills] recommended; Instructor: Halcon PhD,Linda Luciente
Description: Student may contact the instructor or department for information.

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 5521 Therapeutic Landscapes
3 credit(s); prereq Jr or sr or grad student] in [health sciences or therapeutic recreation or horticulture or landscape architecture] or health professional or instr consent; Instructor: Larson,Jean Marie
Description: This course is to help students build a theoretical foundation for healing environments and their application to Complementary Alternative Medicine (CAM). This course is offered only through the Center for Spirituality and Healing but carries a wide interdisciplinary application into the departments of horticulture, landscape architecture, architecture, interior design, therapeutic recreation, and the health sciences. Style: 50% Lecture, 25% Discussion. small group work Grading: 25% mid exam, 50% reports/papers, 25% in-class presentation.

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 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 5611 Healthy Humor
1 credit(s); prereq Jr or sr or grad student or instr consent;
Instructor: Smith, Kevin Lee
Description: Using formal lecture, informal discussion, written, and web-based assignments, students will learn how to use humor to enhance communication, treatment, and relationships with patients, and how to create a positive work environment with co-workers, and how to create a more positive outlook. This course will also explore the many physiologic effects and benefits of humor and laughter and the effects on the immune system. Discussion will include contemporary humor, humor and spirituality, and the connection between positive outlook and health. Students will be provided with practical humor techniques and resources that will help them to become a humor expert.

CSPH 5702 Fundamentals of Health Coaching II
A-F only, 4 credit(s); prereq 5701;
Instructor: Lawson MD, Karen Lynn
Description: Student may contact the instructor or department for information.

CSPH 5771 Optimal Healing Environments
3 credit(s); prereq Jr or sr or grad student or instr consent;
Instructor: Kretzler, Mary Jo
Description: Student may contact the instructor or department for information.

CSPH 8101 Critiquing and Synthesizing Complementary and Alternative Healing Practices (CAHP) Research
2 credit(s); prereq Grad student;
Instructor: Duckett, Laura J
Description: Student may contact the instructor or department for information.

Central Asian Studies
214 Nolle Center

CAS 3533 Islam and the West
3 credit(s); Credit will not be granted if credit has been received for: MELC 3533;
Instructor: Bashiri, Iraj
Description: Student may contact the instructor or department for information.

CAS 3601 Persian Fiction in Translation
3 credit(s); Credit will not be granted if credit has been received for: CAS 5601; Meets CLE req of International Perspect Theme; meets CLE req of Literature Core;
Instructor: Bashiri, Iraj
Description: Prose fiction was introduced to Iranian society in the early 1920s by Iranian intellectuals returning from Europe. In the beginning it had a difficulty finding a place in Persian literature, but finally it found a niche. Spearheaded by Muhammad Ali Jamzadeh and promoted by Sadeq Hedayat, prose fiction became Iran's most prominent vehicle for self expression. Young authors, first in the urban centers and later in the countryside, used this vehicle for familiarizing their countrymen with the new world realities. Through the development of Persian fiction In the context of Iran's ancient heritage, students become acquainted with both the internal and external forces that bind contemporary Iranian society to world civilization. The works of Jamzadeh ("Persian Is Sugar"), Hedayat ("The Blind Owl, The Stray Dog"), Ali-i Ahmad ("The China Vase, Fascinated by the West"), Behrangi ("The Little Black Fish"), and others are analyzed and discussed.
Style: 70% Lecture, 20% Discussion. Video tapes
Grading: 10% mid exam, 15% final exam, 30% reports/papers, 20% quizzes, 10% class participation, 12% other evaluation. book report, 3% attendance
Exam Format: Essay

CAS 5601 Persian Fiction in Translation
3 credit(s); prereq credit will not be granted if credit received for: 3601, MELC 5601; Credit will not be granted if credit has been received for: CAS 3601; Meets CLE req of International Perspect Theme;
Instructor: Bashiri, Iraj
Description: Prose fiction was introduced to Iranian society in the early 1920s by Iranian intellectuals returning from Europe. In the beginning it had a difficulty finding a place in Persian literature, but finally it found a niche. Spearheaded by Muhammad Ali Jamzadeh and promoted by Sadeq Hedayat, prose fiction became Iran's most prominent vehicle for self expression. Young authors, first in the urban centers and later in the countryside, used this vehicle for familiarizing their countrymen with the new world realities. Through the development of Persian fiction In the context of Iran's ancient heritage, students become acquainted with both the internal and external forces that bind contemporary Iranian society to world civilization. The works of Jamzadeh ("Persian Is Sugar"), Hedayat ("The Blind Owl, The Stray Dog"), Ali-i Ahmad ("The China Vase, Fascinated by the West"), Behrangi ("The Little Black Fish"), and others are analyzed and discussed.
Style: 70% Lecture, 20% Discussion. Video tapes
Grading: 10% mid exam, 15% final exam, 30% reports/papers, 20% quizzes, 10% class participation, 12% other evaluation. book report, 3% attendance
Exam Format: Essay

Chemical Engineering
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 4006 Mass Transport and Separation Processes  
A-F only, 4 credit(s); prereq [4001 or dept consent ], 4005, 4101, [upper div ChEn major or dept consent ];  
Instructor: Dadaulis, Prodromos  
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 4102 Reaction Kinetics and Reactor Engineering  
A-F only, 4 credit(s); prereq 4001, 4101, [upper div ChEn major or dept consent ];  
Instructor: Mc Cormick, Alon Victor  
Description: Chemical equilibrium and chemical kinetics applied to chemical engineering systems. Behavior/design of chemical reactors, interaction between chemical and physical rate processes. Mathematical modeling, design of reactors.

CHEN 4201 Numerical methods in ChEn applications  
A-F only, 3 credit(s); prereq [4001 or dept consent ], [4005 or equiv], [4006 or Concurrent registration is required (or allowed) in 4006 or equiv], [upper div ChEn major or dept consent ];  
Instructor: Kumar, Satish  
Description: Student may contact the instructor or department for information.

CHEN 4201 Numerical methods in ChEn applications  
A-F only, 3 credit(s); prereq [4001 or dept consent ], [4005 or equiv], [4006 or Concurrent registration is required (or allowed) in 4006 or equiv], [upper div ChEn major or dept consent ];  
Instructor: Kumar, Satish  
Description: Student may contact the instructor or department for information.

CHEN 4214 Polymers  
A-F only, 3 credit(s); prereq [[MATS 3011, [3101 or 4101 or MATS 4001], [upper div Mats or ChEn]] or instr consent ;  
Instructor: Bates, Frank S  
Description: Polymer synthesis, characterization, structure property relations. Polymerization types: free radical, condensation, ionic, coordination polymerization kinetics and reactors; molecular weight distribution and its characteristics; network formation; swelling. Structure and morphology of the crystalline and amorphous state. Crystallization kinetics, vitrification and the glass transition, rubber elasticity, viscoelasticity, mechanical properties, failure, permeability, optical and electrical properties, polymer composites. On successful completion of this course, students will understand how most polymers are made and how they are characterized. They will be able to design simple synthetic schemes to produce a polymer of desired size and microstructure. They will understand how size and microstructure control properties. They will be able to select polymeric materials to meet specific property requirements.  
Style: 95% Lecture, 5% Discussion.  
Grading: 40% mid exam, 35% final exam, 25% problem solving.

CHEN 4402W Chemical Engineering Lab II  
2 credit(s); prereq 4006, 4101, 4401W, upper div ChEn major;  
Meets CLE req of Writing Intensive;  
Instructor: Caretta, Raul Alberto  
Style: 15% Lecture, 85% Laboratory. Laboratory reports  
Grading: 66% reports/papers, 15% in-class presentation, 19% other evaluation. One hour review exam  
Exam Format: Essay

CHEN 4502W Chemical Engineering Process Design II  
A-F only, 2 credit(s); prereq 4501W, [upper div ChEn major or dept consent ];  
Meets CLE req of Writing Intensive;  
Instructor: Cussler Jr, Edward L  
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 repeats 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 repeats 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 4102, [upper div ChEn major or dept consent ];  
Instructor: Morse, David Clark  
Description: Student may contact the instructor or department for information.

CHEN 4706 Advanced Undergraduate Physical and Chemical Thermodynamics  
A-F only, 3 credit(s); prereq CHEM 3502, [3101 or 4101], [3005 or 4005], ChEn major upper div; background in undergrad engineering or chemistry courses in thermodynamics recommended;  
Instructor: Aydili, Eray S  
Description: Student may contact the instructor or department for information.

CHEN 4708 Advanced Undergraduate Chemical Rate Processes: Analysis of Chemical Reactors  
A-F only, 3 credit(s); prereq [3102 or 4102], ChEn major upper div;  
Instructor: Tsapatsis, Michael  
Description: Student may contact the instructor or department for information.

CHEN 5753 Biological Transport Processes  
A-F only, 3-4 credit(s), max credits 4, 1 repeat allowed; prereq 3005 or 4005 or equiv; Credit will not be granted if
credit has been received for: ME 5381;  
Instructor: Barocas, Victor Howard  
Description: Student may contact the instructor or department for information.

CHEN 8202 Applied Mathematics II: Nonlinear Analysis  
A-F only, 2 credit(s); prereq [Grad-level course in linear analysis, chemical engineering grad major] or instr consent;  
Instructor: Derby, Jeffrey Jay  
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 8501 Chemical Rate Processes: Analysis of Chemical Reactors  
A-F only, 3 credit(s); prereq [Course in chemical reactor engineering, chemical engineering grad student] or instr consent;  
Instructor: Tsapatsis, Michael  
Description: Student may contact the instructor or department for information.

CHEN 8754 Systems Analysis of Biological Processes  
3 credit(s); prereq Grad student in [life sciences or chemical/physical sciences or engineering]; ChEn students must take A-F;  
Instructor: Hu, Wei-Shou  
Description: Student may contact the instructor or department for information.

CHEN 8901 Seminar  
1 credit(s), max credits 9, 9 repeats allowed;  
Instructor: Frisbie, C Daniel  
Description: Student may contact the instructor or department for information.

CHEN 8993 Directed Study  
1-12 credit(s), max credits 12, 1 repeat allowed;  
Instructor: Frisbie, C Daniel  
Description: Student may contact the instructor or department for information.

CHEN 8994 Directed Research  
1-12 credit(s), max credits 12, 1 repeat allowed;  
Instructor: Frisbie, C Daniel  
Description: Student may contact the instructor or department for information.

Chemistry  
139 Smith Hall  

CHEM 1011 Introductory Chemistry: Lecture and Laboratory  
4 credit(s); prereq [high school chemistry or equiv], two yrs high school math, not passed chem placement exam; high school physics recommended. Not intended for students who will later take CHEM 1021; Credit will not be granted if credit has been received for: CHEM 1015; Meets CLE req of Physical Science/Lab Core;  
Instructor: STAFF  
Description: Chem 1011 is an undergraduate introductory chemistry course. It may meet a chemistry 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: 50% Lecture, 50% Laboratory.  
Grading: 20% laboratory evaluation, 5% problem solving, 75% other evaluation. Three midterm exams and a final exam  
Exam Format: multiple choice  

CHEM 1015 Introductory Chemistry: Lecture  
3 credit(s); prereq [High school chemistry or equiv], two yrs high school math, not passed chem placement exam; high school physics recommended. Does NOT meet CLE req of Physical Science/Lab Core. Intended for students continuing on to CHEM 1021; Credit will not be granted if credit has been received for: CHEM 1011;  
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, dept consent credit will not be granted if credit received for: 1011;  
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); prereq 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 Environment Theme; meets CLE req of Physical Science/Lab Core;  
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; thermochemistry; 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); prereq 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 Environment Theme; meets CLE
CHEM 1900 Freshman Seminar: Sci. Progress: Pop Culture and Policy  
A-F only, 2 credit(s), max credits 3, 1 repeat allowed; prereq freshman;  
Instructor: Cramer, Christopher J  
Description: Student may contact the instructor or department for information.

CHEM 1905 Freshman Seminar: Writing Intensive: Quantum  
CHEM 1905 Freshman Seminar: My Other Car Is A Bicycle  
CHEM 1905 Freshman Seminar: Science & the Environment  
CHEM 1905 Freshman Seminar: Recycling In The Twin Cities  
CHEM 1905 Freshman Seminar: Solar Energy & the Environment  
CHEM 1905 Freshman Seminar: Freshman Seminar: My Other Car Is A Bicycle  
CHEM 1910W Freshman Seminar: Writing Intensive: Quantum Mechanics and Popular Philosophy  
CHEM 2094 Directed Research  
CHEM 2301 Organic Chemistry I

CHEM 2302 Organic Chemistry II  
4 credit(s); prereq Grade of at least C- in 2301;  
Instructor: STAFF  
Description: Reactions, synthesis, and spectroscopic characterization of organic compounds, organic polymers, and biologically important classes of organic compounds such as lipids, carbohydrates, amino acids, peptides, proteins, and nucleic acids.  
Style: 100% Lecture.  
Grading: 100% other evaluation. 4 Midterm Exams and a Final Exam  
Exam Format: Mix of multiple choice and written questions

CHEM 2311 Organic Lab  
4 credit(s); prereq Grade of at least C- in 2302 or Concurrent registration is required (or allowed) in 2302;  
Instructor: Wissinger, Jane E  
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 analgesics, 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&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: 10% Lecture, 90% Laboratory.  
Grading: 74% reports/papers, 9% quizzes, 17% other evaluation. preparation and technique

CHEM 2390 Special Topics In Chemistry  
S-N only, 1 credit(s), max credits 6, 6 repeats allowed; prereq 1 sem 1xxx chemistry or instr consent;  
Instructor: Stathopoulos, Stephanie M  
Description: Student may contact the instructor or department for information.

CHEM 3001 Chemical Literature and Information Retrieval  
S-N only, 1 credit(s); prereq 2302 or concurrent enrollment 2302 or instr consent;  
Instructor: Lafferty, Meghan  
Description: The ability to find chemical information is a crucial skill for chemists in order to make their research more efficient and avoid duplicating work that has already been done. In this course, you will learn about the organization of the chemical literature, important print and electronic resources for navigating the literature of chemistry, and selecting the most appropriate resource for your needs.

CHEM 3501 Introduction to Thermodynamics, Kinetics, and Statistical Mechanics  
3 credit(s); prereq [1002 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  
Description: Physical chemistry as it relates to macroscopic reactivity/properties. Spectroscopic characterization of organic molecules.  
Style: 100% Lecture.  
Grading: 100% other evaluation. 4 Midterm Exams and a Final Exam  
Exam Format: Mix of multiple choice and written questions

**Style:** 100% Lecture.

**Grading:** 100% other evaluation. 3 Mid-term exams and a final exam

**CHEM 3502 Introduction to Quantum Mechanics and Spectroscopy**

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:** STAFF

**Description:** Introduction to microscopic descriptions of chemical systems. Elementary quantum theory. Applications to atomic/molecular structure. Molecular spectroscopy. Quantum statistical mechanics. While a course in differential equations is not required, solutions to several such equations are discussed.

**Style:** 100% Lecture.

**Grading:** 60% mid exam, 30% final exam, 10% problem solving.

**CHEM 4094W Directed Research**

1-5 credit(s), max credits 75, 15 repeats 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 4223W Polymer Laboratory**

2 credit(s); prereq 4221 or 8221 or MATS 5221 or CHEN 4214 or CHEN 5221 or instr consent ; Credit will not be granted if credit has been received for: MATS 5223W; Meets CLE req of Writing Intensive;

**Instructor:** Hillmyer, Marc Andrew

**Description:**

- **Style:** 20% Lecture, 80% Laboratory.
- **Grading:** 60% reports/papers, 20% written homework, 20% laboratory evaluation.

**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 5755 X-Ray Crystallography**

A-F only, 4 credit(s); prereq Chem grad student or instr consent;

**Instructor:** Young Jr, Victor G

**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:** Siepmann, Ilja

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

**CHEM 8081 M.S. Plan B Project I**

A-F only, 1-4 credit(s), max credits 4, 1 repeat allowed; prereq grad chem major;

**Instructor:** Tomlinson, Charles Nagel

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

**CHEM 8082 M.S. Plan B Project II**

A-F only, 1-4 credit(s), max credits 4, 1 repeat allowed; prereq grad chem major;

**Instructor:** Tomlinson, Charles Nagel

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

**CHEM 8152 Analytical Spectroscopy**

4 credit(s); prereq chem major or instr consent;

**Instructor:** Haynes, Christy L

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

**CHEM 8153 Extracting Signal From Noise**

A-F only, 5 credit(s); prereq [4101 or equiv], differential equations course;

**Instructor:** Arriga, Edgar

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

**CHEM 8211 Physical Polymer Chemistry**

4 credit(s); prereq Undergrad physical chem course; Credit will not be granted if credit has been received for: MATS 8211;

**Instructor:** Lodge, Timothy P

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

**CHEM 8552 Quantum Mechanics II**

4 credit(s); prereq 8551;

**Instructor:** Lipsky, Sanford

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

**CHEM 8562 Thermodynamics, Statistical Mechanics, and Reaction Dynamics II**

4 credit(s); prereq 8561;

**Instructor:** Zhu, Xiaoyang

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

**Chicano Studies**

2 Scott Hall

**CHIC 1275 Service Learning in the Chicano/Latino Community**

3 credit(s); Credit will not be granted if credit has been received for: CHIC 3275; Meets CLE req of Citizenship/Politics Theme; meets CLE req of Cultural Diversity Theme;

**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 42 hours of tutoring and mentoring (approx. 3 hours a week) in culturally grounded programs in one of the following sites: La Escuelita, Academia Cesar Chavez or Edison High School. 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. In this course students will be called upon to problematize and think critically about “service” A portion of class discussions will focus on the concept of service and what place it has in society.

**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 1275 Service Learning in the Chicano/Latino Community**

3 credit(s); Credit will not be granted if credit has been received for: CHIC 3275; Meets CLE req of Citizenship/Politics Theme; meets CLE req of Cultural Diversity Theme;
CHIC 3275 Service Learning in the Chicano/Latino Community
3 credit(s); Credit will not be granted if credit has been received for: CHIC 1275; Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme; Instructor: Garney,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 42 hours of tutoring and mentoring (approx. 3 hours a week) in culturally grounded programs in one of the following sites: La Escuelita, Academia Cesar Chavez or Edison High School. 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. In this course students will be called upon to problematize and think critically about “service.” A portion of class discussions will focus on the concept of service and what place it has in society.
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 3275 Directed Studies
1-9 credit(s), max credits 16, 16 repeats allowed; prereq instr consent;
Instructor: Mendoza,Louis Gerard
Description: Course Description & Goals This course will explore the cultural, intellectual, and socio-political traditions of Chicanas and Chicanos as they are represented in creative literature. We will examine various genres and forms of creative cultural expression and explore their significance as representations of social, cultural, and political life in the United States. The genres to be studied with an interdisciplinary approach include novels, short stories, drama, and poetry. We will utilize a multimedia approach to studying the different manifestations of these cultural forms. Emphasis will be placed on the study of literature and culture in historical context. The secondary readings will help provide historical context and a theoretical framework to facilitate our understanding of the forces which have shaped the lives of people of Mexican descent living in the United States. We will explore the values, assumptions, and philosophical concepts that have informed the development of ?ethnicity? in the U.S. and responses to the dominant and dominating cultural forms. The primary goal of this course is to familiarize students with Chicana/o literary discourse. The social narratives contained within the literature will offer insight into the often contentious relationship between an emerging ?minority? literature and mainstream culture and society.
Style: 35% Lecture, 10% Film/Video, 35% Discussion, 10% Small Group Activities, 10% Student Presentation.
Grading: 15% mid exam, 45% reports/papers, 15% quizzes, 15% journal, 10% in-class presentation.

CHIC 3374 Migrant Farmworkers in the U.S.: Families, Work, and Advocacy
3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core; Instructor: Caron,Jennifer Lyn
Description: This course examines the historical, legal and political forces which impact farmworker lives and farmworker movements. We will study the interplay of ethnicity, class and gender as they pertain to social and economic marginalization of migrant workers. We will examine the larger community response, both in support of and against, organized farmworker groups and the role and power of the consumer in today's agricultural system. This course provides a solid foundation for students who wish to apply for summer positions with migrant farmworker organizations or agencies. Upper division undergraduates and graduate students. Fulfils Social Sciences Diversified Core and Cultural Diversity requirements.
Style: 40% Lecture, 10% Film/Video, 30% Discussion, 10% Small Group Activities, 5% Field Trips, 5% Guest Speakers.
Exam Format: multiple choice and short answer
Description: Student may contact the instructor or department for information.

CHIC 4231 The Color of Public Policy: African Americans, American Indians, and Chicanos in the United States
3 credit(s); Credit will not be granted if credit has been received for: AFRO 4231;
Instructor: Brewer,Rose Marie
Description: This course is designed to familiarize students with the history of U.S. public policy development and social relations across racial-ethnic-nation cultures. The focus will be on the United States, but recent developments from the global context will be incorporated for comparative purposes. In this course we will examine the structural and institutional conditions through which people of color have been systematically marginalized, and how diverse populations have fought for and won or lost policy change. The course will help students better understand and interpret the "dominant paradigm" in which public policy has been set. Then, we will examine how and why this paradigm has shifted over time, and what the current prospects are for policy transformation in the domestic and global arenas.
Style: 20% Lecture, 40% Discussion, community research participation, 30% other evaluation. community research participation
Exam Format: take-home

CHIC 4900W Proseminar: Senior Project
A-F only, 1 credit(s); Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Students work closely with a faculty member to complete their senior project.

CHIC 4901W Senior Paper
A-F only, 2 credit(s); prereq Concurrent registration is required (or allowed) in 4900; Meets CLE req of Writing Intensive;
Instructor: Mendoza,Louis Gerard
Description: Student may contact the instructor or department for information.

CHIC 5374 Migrant Farmworkers in the U.S.: Families, Work, and Advocacy
3 credit(s);
Instructor: Sass Zaragoza,Lisa
Description: This course examines the historical, legal and political forces which impact farmworkers' lives and farmworker movements. We will study the interplay of ethnicity, class and gender as they pertain to social and economic marginalization of migrant workers. We will examine the larger community response, both in support of and against, organized farmworker groups and the role and power of the consumer in today's agricultural system. This course provides a solid foundation for students who wish to apply for summer positions with migrant farmworker organizations or agencies. Upper division undergraduates and graduate students. Fulfills Social Sciences Diversity Core and Cultural Diversity requirements.
Style: 40% Lecture, 10% Film/Video, 30% Discussion, 10% Small Group Activities, 5% Field Trips, 5% Guest Speakers.
Exam Format: multiple choice and short answer

CHIC 5993 Directed Studies
1-3 credit(s), max credits 16, 16 repeats allowed; prereq instr consent;
Instructor: Mendoza,Louis Gerard
Description: Student may contact the instructor or department for information.

CHIC 5993 Directed Studies
1-3 credit(s), max credits 16, 16 repeats allowed; prereq instr consent;
Instructor: Martinez,Richard E
Description: Student may contact the instructor or department for information.

CPSY 1910W Freshman Seminar, Writing Intensive: Child Psychologists Confront the Real World
3 credit(s), max credits 6; prereq Fr; Meets CLE req of Writing Intensive;
Instructor: Pick Jr,Herbert L
Description: Student may contact the instructor or department for information.

CPSY 2301 Introductory Child Psychology
4 credit(s); prereq 4 cr intro psych; Meets CLE req of Social Science Core;
Instructor: Maratosos,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; Meets CLE req of Social Science Core;
Instructor: Herbers,Janette E
Description: Student may contact the instructor or department for information.

CPSY 3301 Introductory Child Psychology for Social Sciences
4 credit(s); prereq 4 cr intro psych; Meets CLE req of Social Science Core;
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);
Instructor: Maratosos,Michael P
Description: Student may contact the instructor or department for information.

CPSY 3301 Introductory Child Psychology for Social Sciences
4 credit(s);
Instructor: Herbers,Janette E
Description: Student may contact the instructor or department for information.

CPSY 3301 Introductory Child Psychology for Social Sciences
4 credit(s);
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
4 credit(s);
Instructor: Warren,Henriette
Description: This undergraduate survey course is designed to familiarize students with 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
Psychology
A-F only, 4 credit(s); prereq 2301, Psy 1001;
Instructor: Sera, Maria D
Description: Student may contact the instructor or department for information.

CPSY 3308 Introduction to Research Methods in Child Psychology
A-F only, 4 credit(s); prereq 2301, Psy 1001;
Instructor: Kaletekin, Canan
Description: Study of measurement principles, scientific method and data analysis.
Style: 100% Lecture.
Grading: The course will include methods for evaluating students. Please contact the instructor for the specific grading criteria.
Exam Format: Short-response

CPSY 4303 Adolescent Psychology
A-F only, 4 credit(s); prereq Psy 1001;
Instructor: Warren, Henriette
Description: This undergraduate course examines psychological development during adolescence. The major goals include 1) gaining an understanding of the major theoretical perspectives on adolescent development, 2) identifying biological, cognitive and social processes of adolescence and the ways in which they interact to influence development, 3) recognizing the role that contextual factors play in shaping adolescent experiences, and 4) gaining familiarity with prominent research methods used in conducting studies of adolescent development. Class sessions will include a mixture of lectures, discussion, videos, and group activities.
Style: 80% Lecture, 10% Discussion. Instructional videos
Grading: 45% mid exam, 20% final exam, 30% reports/papers, 5% class participation.
Exam Format: Multiple choice

CPSY 4310 Special Topics in Child Development
1-4 credit(s), max credits 12, 3 repeats allowed; prereq 2301;
Instructor: Yonas, Albert
Description: CPsy. 4310- Special Topics in Child Psychology Seminar. 10:10 AM to 12:30 PM, Wednesdays, ChildDev 172 TCEASTBANK, Yonas, Albert, 3 credits, instructors consent required Measuring Face Perception in Children with Autism Spectrum Disorders (ASD) The seminar will be for honors students and other undergraduates who are planning to on to graduate school. The class will be small, 16 students, and be run as a group discussion rather than a set of lectures presented by the instructor. It will deal with research on the diagnoses of ASD using new tests of face perception. The class will also cover new intervention techniques that have been created to help children with ASD and prosopagnosia (face blindness) become better at perceiving and remembering faces. We will create a manual for using a new methods of training children to attend to faces and adapt a second method that created and used to help adults for use with young children. Students will need my permission to register for the class. You can call me at 612-624-6805 to get permission from me and email me at yonas@umn.edu. The class will meet once a week on Wednesdays for 2 and 1/2 hours starting at 10:10 AM.
Style: 60% Discussion, 20% Small Group Activities, 20% Student Presentation.
Grading: 40% special projects, 20% in-class presentation, 40% class participation.

CPSY 4313 Disabilities and Development
4 credit(s); prereq Psy 1001;
Instructor: Abey, Brian Hinton
Description: The purpose of this course is to provide students with a broad understanding of disabilities and their impact upon child development, taking into consideration the ecology within which growth and maturation take place. Content areas covered will include: disabilities and the educational system, disability and the family, multi-cultural issues and disability, mental retardation, learning disabilities, attention deficit disorder, physical and health related disabilities, autism and traumatic brain injury, communication disorders, hearing and visual impairments, and emotional and behavioral challenges. When covering each disability, issues of etiology, identification, assessment, intervention and developmental outcome will be discussed. A number of additional disability-related topics will also be explored over the course of the semester. These include self-advocacy and self-determination, social inclusion, and ethical and legal issues.
Style: 75% Lecture, 25% Discussion.
Grading: 30% mid exam, 30% final exam, 20% reports/papers, 20% problem solving.
Exam Format: Multiple choice and essay

CPSY 4331 Social and Personality Development
A-F only, 4 credit(s); prereq 2301, Psy 1001;
Instructor: Orina, M. Minda
Description: Student may contact the instructor or department for information.

CPSY 4336W Development and Interpersonal Relations
A-F only, 4 credit(s); prereq 2301 or equiv, 4331; Meets CLE req of Writing Intensive;
Instructor: Haydon, KC
Description: Student may contact the instructor or department for information.

CPSY 4343 Cognitive Development
A-F only, 3 credit(s); prereq 2301;
Instructor: Carlson, Stephanie M
Description: Student may contact the instructor or department for information.

CPSY 4345 Language Development and Communication
A-F only, 3 credit(s); prereq 2301;
Instructor: Koenig, Melissa Louise
Description: Student may contact the instructor or department for information.

CPSY 4994 Directed Research in Child Psychology
1-4 credit(s), max credits 8, 8 repeats allowed; prereq 4 cr in CPsy, 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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Oberg MD, Charles N
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Masten, Ann S
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Weinberg, Richard A
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Crick, Nicki R
Description: Student may contact the instructor or department for information.

CPSY 4996 Field Study in Child Psychology
S-N only, 1-4 credit(s), max credits 8, 8 repeats allowed; prereq 4 cr CPsy, instr consent;
Instructor: Mooney-McLoone, Ann
Description: This opportunity normally provides students with an practicum experience (volunteer). It offer another way to develop contacts and explore different career possibilities. The Child Psychology Peer Advising Office, Room 140, Child Development, will direct you to volunteer possibilities. Look at develop contacts and explore different career possibilities. The
CPSY 4994V Directed Research in Child Psychology (Honors Thesis)
1-6 credit(s), max credits 6, 4 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Gunner 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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Karatekin, Canan
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Gewirtz, Abigail
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Zelazo, Philip David
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Carlson, Stephanie M
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Koenig, Melissa
Description: Student may contact the instructor or department for information.

CPSY 4996 Field Study in Child Psychology
S-N only, 1-4 credit(s), max credits 8, 8 repeats allowed; prereq 4 cr CPsy, instr consent;
Instructor: Mooney-McLoone, Ann
Description: This opportunity normally provides students with an practicum experience (volunteer). It offer another way to develop contacts and explore different career possibilities. The Child Psychology Peer Advising Office, Room 140, Child Development, will direct you to volunteer possibilities. Look at develop contacts and explore different career possibilities. The

Instructor: Crick, Nicki R
Description: Student may contact the instructor or department for information.

Instructor: Weinberg, Richard A
Description: Student may contact the instructor or department for information.

Instructor: Maratosos, 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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Gunner 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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Karatekin, Canan
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Gewirtz, Abigail
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Zelazo, Philip David
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Carlson, Stephanie M
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 repeats allowed; prereq 4 cr in CPsy, CPsy honors, instr consent, dept consent; Meets CLE req of Writing Intensive;
Instructor: Koenig, Melissa
Description: Student may contact the instructor or department for information.

CPSY 4996 Field Study in Child Psychology
S-N only, 1-4 credit(s), max credits 8, 8 repeats allowed; prereq 4 cr CPsy, instr consent;
Instructor: Mooney-McLoone, Ann
Description: This opportunity normally provides students with an practicum experience (volunteer). It offer another way to develop contacts and explore different career possibilities. The Child Psychology Peer Advising Office, Room 140, Child Development, will direct you to volunteer possibilities. Look at...
ICD website and click on cpsy 4996 to find out what course requirements are and how credit hours are counted. There are
many agencies that may be of interest to students and they are
expected to find a volunteer site first and then come see Ann
Mcloone when they have set it up or email her. There is no class
but I send out questions periodically for you to reflect on and
answer. The hours are usually flexible enough to work around
any schedule. Students sign up for 1-4 credits. 3 hours on site
per week 1 credit is required. Normally students sign up for 1 or
2 cr. per semester.
Style: 10% Discussion, 90% Laboratory.
Grading: 20% reports/papers, 80% laboratory evaluation.
student evaluation by on-site supervisor
Exam Format: paper and journal

CPSY 5252 Facilitating Social and Physical Learning in Early
Childhood Education
A-F only, 3 credit(s); prereq Student in early childhood ed or
early childhood special ed will not be granted if credit
received for; CI 5252;
Instructor: Carlson PhD,LaVonne
Description: Student may contact the instructor or department
for information.

CPSY 5281 Student Teaching in Early Childhood Education
S-N only, 3-6 credit(s), max credits 6, 1 repeat 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 5503 Foundations in Infant and Early Childhood Mental
Health II
A-F only, 3 credit(s); prereq 5501;
Instructor: Schultz,Susan Kristine
Description: Student may contact the instructor or department
for information.

CPSY 5506 Infant Observation Seminar I
OPT No Aud, 1 credit(s); prereq 5501, instr consent ;
Instructor: Schultz,Susan Kristine
Description: Student may contact the instructor or department
for information.

CPSY 8302 Developmental Psychology: Social and Emotional
Processes
4 credit(s); 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 repeats allowed; prereq
Doctoral student or instr consent;
Instructor: Cicchetti PhD,Dante
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 repeats allowed; prereq
Doctoral student or instr consent;
Instructor: Masten,Ann S
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 repeats allowed; prereq
Doctoral student or instr consent;
Instructor: Georgieff,Michael K
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 repeats allowed; prereq
Doctoral student or instr consent;
Instructor: Thomas,Kathleen M
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 repeats allowed; prereq
Doctoral student or instr consent;
Instructor: Yonas,Albert
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 repeats allowed; prereq
Doctoral student or instr consent;
Instructor: Sera,Maria D
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 repeats 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 repeats allowed; prereq
Doctoral student or instr consent;
Instructor: Pick,Anne D
Description: Student may contact the instructor or department
for information.

This information is accurate as of 6/9/2008 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.
CAPY 5623 Assessment and Treatment Interventions: Anxiety and Depression in Children and Adolescents
1 credit(s);
Instructor: Layne, Ann Elizabeth
Description: Student may contact the instructor or department for information.

CAPY 5630 Workshop: Psychotherapy in Children and Adolescents
S-N only, 1 credit(s);
Instructor: Bloomquist PhD, LP, Michael Leonard
Description: Student may contact the instructor or department for information.

S-N only, 1 credit(s); Credit will not be granted if credit has been received for: CAPY 5670;
Instructor: August, Gerald
Style: 95% Lecture, 5% Discussion.
Grading: 100% reports/papers.
Exam Format: Students will turn in a paper.

CAPY 5663 Building Friendships and Peer Relationship Skills: Interventions for Socially Rejected Children
S-N only, 1 credit(s);
Instructor: August, Gerald
Description: Basic milestones in social development will be reviewed. Behaviors and mechanisms leading to peer acceptance/rejection during the childhood years will be discussed. Strategies for promoting social skill acquisition will be presented. Behavioral, social-cognitive and emotional-regulation intervention approaches will be illustrated. Class meets 8:30 am-4:00 pm, Saturday, December 8, 2001 in Moos T 2-620.

CAPY 5673 Prevention Programming: Learning the Skills to Implement a Preventive Intervention
1 credit(s);
Instructor: Bloomquist PhD, LP, Michael Leonard
Description: Student may contact the instructor or department for information.

CAPY 5675 Childhood Psychiatric Disorders: Case Studies and Interventions
1 credit(s);
Instructor: Carriere, Sandy Paulsen
Description: Student may contact the instructor or department for information.

Chinese
453 Folwell Hall

CHN 1012 Beginning Modern Chinese
6 credit(s); prereq 1011 or equiv or instr consent; Credit will not be granted if credit has been received for: CHN 4002;
Instructor: Wang, Ling
Description: This is the second semester of the two-semester sequence in first-year Chinese. This course is designed for those who have completed Chinese 1011. Students with equivalent preparation may also register this course with the written permission of the instructor. In this course, students are introduced to additional modern standard Chinese (Mandarin) grammar, vocabulary, and sentence structures. As with Chinese 1011, the course consists of two lectures and five recitation classes each week. By the end of the semester, students should be able to recognize about 700 characters, write about 500 of them, conduct simple conversations on various daily topics, read texts on general topics, and write a short composition in Chinese. Textbook: Integrated Chinese, Level 1, Part 2 (Cheng & Tsui Company). Classroom: 7 class hours/week
Style: 30% Lecture, 70% Discussion.
Grading: 10% mid exam, 15% final exam, 10% quizzes, 20% laboratory evaluation, 15% other evaluation. Tests: 5%
Homework: Characters; 10% Tapes; 10% Written; 5%
Vocabulary Quizzes.
Exam Format: Listening, speaking, reading and writing
CHN 1016 Accelerated Intermediate Modern Chinese
5 credit(s); prereq 1012 or 1015; oral/aural skills or speaker of other Chinese dialect recommended credit will not be granted if credit were awarded for: 3021 or 3022;
Instructor: Li, Chi-Ping
Description: As the second part Accelerated Modern Chinese course series, this course is the continuation of Chinese 1015. It is designed for students who are heritage speakers of Chinese and/or who can understand and speak modern Chinese. The purpose of this course is to help students improve their ability in listening, speaking, reading and writing Chinese. It particularly aims to help students develop more sophisticated vocabulary and enhance reading and writing ability in Chinese. As an accelerated course, we will cover the whole of second year Chinese within one semester, and the pace of the course will be approximately one lesson every three days. Students should be ready to take the Chinese GPT and/or take third year Chinese after this course.
Style: 40% Lecture, 50% Discussion, 10% Laboratory.
Grading: 15% mid exam, 15% final exam, 10% quizzes, 20% class participation, 40% other evaluation. 20% Homework; 5% Vocab Quizzes; 5% Composition; 10% Tests
Exam Format: Oral interview and performance, listening, reading, writing

CHN 3022 Intermediate Modern Chinese
5 credit(s); prereq 3021;
Instructor: Liu, Zhigang
Description: This course, the second segment of a two-semester sequence in intermediate modern Chinese, is intended for students who have completed Chinese 3021 or its equivalent. Students who have not completed Chinese 3021 or its equivalent but wish to register to get permission from the primary instructor first. The course is to assist students in improving their ability to understand, speak, read, and write Chinese, and particularly, aims to help students use more advanced vocabulary and more complex sentence structures so that they can meet the standard of Chinese GPT. CHN 3022 covers lessons 11-20 of the textbook "Integrated Chinese". Level 2 by Yuehua Liu, Tao-chung Yao et al (Chen & Tsui Company). By the end of the semester, students are expected to be able to comprehend daily Chinese speech, conduct fairly sustained conversation in Chinese, read Chinese articles of some sophistication, and write compositions in Chinese for general communication purposes.
Style: 40% Lecture, 60% Discussion.
Grading: 15% mid exam, 20% final exam, 20% quizzes, 25% written homework, 10% attendance, 5% class participation. Vocabulary quizzes 5%
Exam Format: Listening comprehension, grammar & usage, reading comprehension, oral interview, etc.

CHN 3032 Advanced Modern Chinese
4 credit(s); prereq 3031 or equiv or instr consent;
Instructor: Li, Chi-Ping
Description: Description: This course is open to students who have successfully completed Chinese 3031 or an equivalent course. This course will focus on Chinese listening and reading skills, but will also include writing assignments and student-led discussions in Chinese. Readings from the textbook will be supplemented with online news articles and at least one Chinese film.
Style: 30% Lecture, 70% Discussion.
Grading: 20% mid exam, 20% final exam, 20% quizzes, 20% written homework, 10% in-class presentation, 10% class participation.
Exam Format: multiple choice, fill the blanks, complete the sentences, etc.

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 the art of Chinese Calligraphy. Practicing in the class will give students hands-on experience of proper use of Chinese brush and ink to write Chinese characters. Students will also have the opportunity to write Chinese Couplets, Chinese poems and to learn the literature and meaning of the calligraphy projects. The Calligraphy book written by the instructor will be used.
Style: 30% Lecture, 10% Discussion. Classroom exercises, with instructor's coaching students individually.
Grading: 50% class participation, 50% other evaluation. Homework assignments and special projects

CHN 3202 Intermediate Chinese Calligraphy
2 credit(s); prereq 3021 or instr consent;
Instructor: Zhang, Hong
Description: This is the second semester of a two-semester sequence in Chinese Calligraphy. The course is designed for those who have completed the course CHN 3201. Students with Chinese Calligraphy background may also enroll with the permission of the instructor. The knowledge of Chinese language is NOT required. Students will learn more advanced techniques relating to the structure and composition of Chinese characters. The regular script type of Chinese calligraphic style will be taught. Students are introduced to Chinese culture with varied Chinese classical poems and couplets. Students will also have the opportunity to learn the literature and meaning of the Chinese Couplets and Poems project. By the end of this course, students will be able to appreciate the art of Chinese Calligraphy. The calligraphy book written by the instructor will be used in this course.
Style: 30% Lecture, 5% Discussion. class room practice with instructor's coaching students individually.
Grading: 50% class participation, 50% other evaluation. homework assignments and special projects.

CHN 4002 Beginning Modern Chinese
3 credit(s); prereq 4001, grad student; Credit will not be granted if credit has been received for: CHN 1012;
Instructor: Wang, Ling
Description: This is the second semester of the two-semester sequence in first-year Chinese. This course is designed for those who have completed Chinese 1011. Students with equivalent preparation may also register this course with the written permission of the instructor. In this course, students are introduced to additional modern standard Chinese (Mandarin) grammar, vocabulary, and sentence structures. As with Chinese 1011, the course consists of two lectures and five recitation classes each week. By the end of the semester, students should be able to recognize about 700 characters, write about 500 of them, conduct simple conversations on various daily topics, read texts on general topics, and write a short composition in Chinese. Textbook: Integrated Chinese, Level 1, Part 2 (Cheng & Tsui Company). Class time: 7 class hours/week
Style: 30% Lecture, 70% Discussion.
Grading: 10% mid exam, 15% final exam, 10% quizzes, 20% laboratory evaluation, 15% other evaluation. Tests; 5% Homework: Characters; 10% Tapes; 10% Written; 5% Vocab Quizzes
Exam Format: Listening, speaking, reading and writing
CHN 5040 Advanced Modern Chinese
3 credit(s); prereq 4007, grad student;
Instructor: Li, Chi-Ping
Description: This course is open to students who have successfully completed Chinese 3031 or an equivalent course. This course will focus on Chinese listening and reading skills, but will also include writing assignments and student-led discussions in Chinese. Readings from the textbook will be supplemented with online news articles and at least one Chinese film.
Style: 30% Lecture, 70% Discussion.
Grading: 20% mid exam, 20% final exam, 20% quizzes, 20% written homework, 10% in-class presentation, 10% class participation.
Exam Format: multiple choice, fill the blanks, complete the sentences, etc.

CHN 4042 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 Chinese writings and improve their ability to read Chinese articles, short stories, and essays in the original. We will study Chinese writings on various topics in modern China during the first half of the twentieth century, especially in the 1920s and 1930s, a time when the pros and cons of Chinese culture was under heated discussion. The aspects of Chinese culture covered in this course, among others, include the May 4th Movement, religion, filial piety, ancestral worship, Chinese characteristics, and male and female positions at home and in society. The genres of these writings include essays, short stories, newspapers, extracts of novels, and films. These works reflect both a changing Chinese society and Chinese intellectuals' efforts to awaken the general public and to bring China into the modern world. The lectures and discussions will focus on the use of the language, the contents of the texts, and the Chinese cultural and philosophical messages found in these works. The instructor hopes that this course will inspire students to further explore modern Chinese society and culture. The course will be taught in Modern Standard Chinese (Mandarin).

CHN 5040 Readings in Chinese Texts
A-F only, 3 credit(s), max credits 12, 4 repeats allowed;
prereq 4042 or equiv or instr consent;
Instructor: Zou, Zhen
Description: Prerequisite: CHN4042 or equivalent or instructor consent Instructor: Zou, Zhen Beginning from fall 2007, the contents of the Chinese 5040 course will include mostly modern and contemporary literary work rather than short articles. In the fall semester, we will study contemporary Chinese short stories and novellas written since 1950 to the present, especially those written in the 1980s and 1990s, a peak time of Chinese literature since China's reform and open to the world. These literary works explore various aspects of contemporary Chinese society, history, and culture, including social prejudices against mentally and physically disadvantaged people, the Cultural Revolution, the drug problem, male-female relationship, education, parental love (and lack thereof), traditional Chinese view of life, rape and sex, the relationship between man and animal, and Chinese government's approaches to social reform in the early 1950s, especially the abolition of prostitution. 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: 10-20 Pages of reading per week, 6 pages of writing per semester. 2 exams, 2 papers, Web project, oral presentation. Grade: 10% midterm exam, 15% final exam, 20% written reports or papers, 10% special projects, 15% quizzes, 10% presentations, 10% class participation, 10% homework. Exam format: Essay questions and short answers.

CHN 5393 Directed Study
1-5 credit(s), max credits 18, 18 repeats 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 repeats 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 repeats 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 5 Refresher Course for Civil Engineers
S-N only, 0 credit(s); prereq BSE or equivalent degree or completion of Parts I and II of the State Board Examination;
Instructor: Labuz, Joseph F
Description: Student may contact the instructor or department for information.

CE 1101 Civil Engineering Orientation
S-N only, 1 credit(s);
Instructor: Labuz, Joseph F
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: Barnes, Randal J
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;
Instructor: Liu, Henry X
Description: Student may contact the instructor or department for information.

CE 3301 Soil Mechanics I
A-F only, 3 credit(s); prereq IT, AEM 3031; Credit will not be granted if credit has been received for: GEOE 3301;
Instructor: Guzina, Bojan B
Description: The mechanics of soils forms the basis of geotechnical engineering involving the design of civil engineering structures such as foundations, retaining walls, dams and
slopes. The course focuses on the fundamentals of soil mechanics and covers the topics such as index properties of soils and their classification, consolidation of saturated soils due to one-dimensional compression, partition of stresses between the soil particles and water, stress distribution in soil deposits due to foundation loads, permeability and seepage. Text: B.M. Das, "Fundamentals of Geotechnical Engineering."

Style: 70% Lecture, 30% Laboratory.
Grading: 27% mid exam, 30% final exam, 10% quizzes, 21% laboratory evaluation, 12% problem solving.
Exam Format: Multiple choice

CE 3401 Linear Structural Analysis
A-F only, 3 credit(s); prereq Grade of at least C- in AEM 3031, IT;
Instructor: Wojtkiewicz Jr, Steven F
Description: Student may contact the instructor or department for information.

CE 3402 Construction Materials
A-F only, 3 credit(s); prereq grade of at least C- in AEM 3031, IT;
Instructor: Khazanovich, Lev
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 Citizenship/Publ Ethics Theme; meets CLE req of Environment Theme;
Instructor: Novak, Paige J
Description: This course is an introduction to the field of environmental engineering. It is for undergraduate majors and non-majors. The course covers topics of global climate change, solid and hazardous waste treatment, air pollution, and water and wastewater treatment. A discussion of mass and energy balances and basic chemistry and microbiology is also presented.
Style: 75% Lecture, 25% Discussion.
Grading: 60% mid exam, 10% reports/papers, 10% quizzes, 20% problem solving.
Exam Format: Short answer and problems

CE 3502 Fluid Mechanics
A-F only, 4 credit(s); prereq [AEM 2012 or AEM 3031], Math 2373, [IT or ForP major];
Instructor: Erdman, John B
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, [IT or ForP major];
Instructor: Sotiropoulos, Fotis
Description: Student may contact the instructor or department for information.

CE 4101W Project Management
3 credit(s); prereq Upper div IT or construction management; Meets CLE req of Writing Intensive;
Instructor: Carlson, Randy Myrle
Description: Student may contact the instructor or department for information.

CE 4101W Project Management
3 credit(s); prereq Upper div IT or construction management; 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 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 4121 Computer Applications in Civil Engineering II
A-F only, 3 credit(s); prereq CE or upper div GeoE 3101, Math 2243, Math 2263; Credit will not be granted if credit has been received for: GEOE 4121;
Instructor: Barnes, Randal J
Description: Student may contact the instructor or department for information.

CE 4180 Independent Study II
1-4 credit(s), max credits 4, 4 repeats allowed; prereq instr consent;
Instructor: STAFF
Description: Special studies in planning, design, or analysis of civil engineering systems. Individual lab research problems, literature studies, reports. Supervised by staff.

CE 4190 Engineering Co-op Assignment
S-N only, 2-6 credit(s), max credits 6, 1 repeat 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 4201 Highway Design
A-F only, 3 credit(s); prereq CE or upper div GeoE or grad, 3202, 3201 or instr consent;
Instructor: Liu, Henry X.
Description: Student may contact the instructor or department for information.

CE 4211 Traffic Engineering
3 credit(s); prereq 3201 or Stat 3021 or equiv;
Instructor: Johnson, Ann M
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 IT] or instr consent; Credit will not be granted if credit has been received for: GEOE 4301;
Instructor: Drescher, Andrew
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 4352 Groundwater Modeling
A-F only, 3 credit(s); prereq Upper div IT or grad, CE 4351, GeoE 4351 or instr consent; Credit will not be granted if credit has been received for: GEOE 4352;
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 enrollment 3402, [upper div IT or grad student];
Instructor: French, Catherine Ellen
Description: Student may contact the instructor or department for information.

CE 4411 Matrix Structural Analysis
A-F only, 3 credit(s); prereq [Grade of at least C- in 3101, 3401 or in a CSci programming course], [upper div IT or grad student] or instr consent;
Instructor: Wojtkiewicz Jr, Steven F
Description: Student may contact the instructor or department for information.

CE 4412 Reinforced Concrete Design II
A-F only, 3 credit(s); prereq [Grade of at least C- in 4401, [upper div IT or grad student]] or instr consent; 4411 recommended;
Instructor: Schultz, Arturo Ernest
Description: Student may contact the instructor or department for information.

CE 4414 Prestressed Concrete Design
A-F only, 3 credit(s); prereq [Grade of at least C- in 4401, [upper div IT or grad student]] or instr consent; 4412 recommended;
Instructor: French, Catherine Ellen
Description: Student may contact the instructor or department for information.

CE 4501 Hydrologic Design
A-F only, 4 credit(s); prereq 3502;
Instructor: Foufoula, Efi
Description: Student may contact the instructor or department for information.

CE 4502 Water and Wastewater Treatment
A-F only, 3 credit(s); prereq 3501;
Instructor: LaPara, Timothy M
Description: Student may contact the instructor or department for information.

CE 4512 Open Channel Hydraulics
A-F only, 4 credit(s); prereq IT or grad, 3502 or instr consent;
Instructor: Mohseni, Omid
Description: Open channel flow theories, conservation of mass, momentum and energy principles, design of canals using the concepts of uniform flow and gradually varied flow conditions, design of culverts and analyzing flows through hydraulic structures, e.g. spillways and bridges, introduction to the principles of unsteady one-dimensional flows in open channels problems.
Style: 75% Lecture, 23% Discussion, 2% Demonstration.
Grading: 25% mid exam, 35% final exam, 20% reports/papers, 20% written homework.

CE 5211 Traffic Engineering
3 credit(s); prereq 3201, Stat 3021 or equiv;
Instructor: Liu, Henry X.
Description: Student may contact the instructor or department for information.

CE 5232 Advanced Portland Cement Concrete
3 credit(s); prereq Upper div IT or grad, CE 4232 or instr consent;
Instructor: Khazanovich, Lev
Description: Student may contact the instructor or department for information.

CE 5542 Experimental Methods in Environmental Engineering
A-F only, 3 credit(s); prereq 3501, Chem 1021, Chem 1022;
Instructor: Arnold, Bill
Description: Student may contact the instructor or department for information.

CE 8002 Numerical Methods for Free and Moving Boundary Problems
A-F only, 3 credit(s); prereq 8401 or instr consent;
Instructor: Voller, Vaughan Richard
Description: Student may contact the instructor or department for information.

CE 8200 Seminar: Transportation
S-N only, 1 credit(s), max credits 3, 3 repeats allowed;
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 repeats allowed;
Credit will not be granted if credit has been received for: GEOE 8300;
Instructor: Guzina, Bojan B
Description: Student may contact the instructor or department for information.

CE 8302 Soil/Rock Plasticity and Limit Analysis
A-F only, 4 credit(s); prereq IT grad student, CE 4300 or instr consent; Credit will not be granted if credit has been received for: GEOE 8302;
Instructor: Drescher, Andrew
Description: Student may contact the instructor or department for information.

CE 8352 Advanced Groundwater Mechanics II
A-F only, 3 credit(s); prereq 4351, IT grad student or instr consent; Credit will not be granted if credit has been received for: GEOE 8352;
Instructor: Strack, Otto D
Description: Student may contact the instructor or department for information.

CE 8400 Seminar: Structures
S-N only, 1 credit(s), max credits 3, 3 repeats allowed;
Instructor: Khazanovich, Lev
Description: Student may contact the instructor or department for information.

CE 8401 Fundamentals of Finite Element Method
A-F only, 3 credit(s); prereq 4411 or instr consent;
Instructor: Stolarski, Henryk Konstanty
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 8441 Ductile Behavior of Steel Structures
A-F only, 3 credit(s); prereq 4411 or equiv;
Instructor: Okazaki, Taichiro
Description: Student may contact the instructor or department for information.

CE 8443 Fracture of Materials and Structures
A-F only, 3 credit(s); prereq 4401 or instr consent;
Instructor: Ballarini, Roberto
Description: Student may contact the instructor or department for information.

CE 8451 Behavior of Reinforced Concrete Structures
A-F only, 3 credit(s); prereq 4412 or instr consent;
Instructor: French, Catherine Ellen
Description: Student may contact the instructor or department for information.
CE 8490 Special Topics
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed;
prereq instr consent;
Instructor: Davis, Gary Arnold
Description: Student may contact the instructor or department for information.

CE 8490 Special Topics
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed;
prereq instr consent;
Instructor: Geroliminis, Nikolas
Description: Student may contact the instructor or department for information.

CE 8500 Environmental Seminar
S-N only, 1 credit(s), max credits 3, 3 repeats allowed;
prereq grad CE major or instr consent;
Instructor: Novak, Paige J
Description: Student may contact the instructor or department for information.

CE 8502 Environmental Fluid Mechanics II
A-F only, 4 credit(s); prereq 8501 or instr consent;
Instructor: Hozalski, Raymond M
Description: Student may contact the instructor or department for information.

CE 8504 Theory of Unit Operations
A-F only, 4 credit(s); prereq 4541, 4531;
Instructor: Hozalski, Raymond M
Description: Student may contact the instructor or department for information.

CE 8511 Mechanics of Sediment Transport
A-F only, 3 credit(s); prereq 3502 and 4501 or instr consent;
Instructor: Hill, Kimberly M
Description: Student may contact the instructor or department for information.

CE 8521 The Atmospheric Boundary Layer
A-F only, 4 credit(s); prereq IT or COAFES grad student or instr consent;
Instructor: Porte-Agel, Fernando
Description: Student may contact the instructor or department for information.

CE 8561 Analysis and Modeling of Aquatic Environments I
A-F only, 3 credit(s); prereq One sem grad work or instr consent;
Instructor: Stefan, Heinz G
Description: Student may contact the instructor or department for information.

CE 8601 Introduction to Stream Restoration
A-F only, 3 credit(s);
Instructor: Vollmer, Vaughan Richard
Description: Student may contact the instructor or department for information.

Classical Civilization
300 Folwell Hall

CLCV 3993 Directed Studies in Classical Civilization
1-4 credit(s), max credits 4, 1 repeat allowed; prereq instr consent;
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 repeat allowed; prereq instr consent;

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

CLCV 3996 Directed Instruction in Classical Civilization
1-4 credit(s), max credits 4, 1 repeat allowed; prereq instr consent;

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

Classical and Near Eastern Studies
245 Nicholson Hall

CNES 1001 World of the Bible: Religions, Empires, and Discourses of Power
3 credit(s); prereq credit will not be granted if credit received for: CLAS 1051; Meets CLE req of Historical Perspective Core;
Instructor: Roetzel, Calvin J
Description: In no hothouse environment but in the rough and tumble of clashing empires and civilizations the Bible took shape. This course will explore the engagement of ancient Israel and early Christianity with those religions and empires, some friendly and some hostile, from the second millennium B.C.E. to the end of the first century C.E. It will study selectively the tensions with and attractions to dominant cultures in the biblical world as diverse as the Sumerian and the Roman and as threatening and alluring as the Canaanite and Hellenistic. The course will investigate how various biblical writers adopted and reshaped their myths, legends, sagas, rituals, laws, wisdom writings, biographies, and political ideologies to speak to their own time, to maintain their identity, and to fashion them into texts of consolation and hope in times of terror.
Style: 75% Lecture, 25% Discussion.
Exam Format: short answer and essay

CNES 1003 World of Rome
3 credit(s); prereq credit will not be granted if credit received for: CLAS 1007; Meets CLE req of Historical Perspective Core;
Instructor: Nappa, Christopher
Description: Rome started out as a small group of hillside villages, went on to control much of the land surrounding the Mediterranean Sea, and ended up setting the stage for much of later western history. This course is a (loosely) chronological survey of the cultural achievements (and problems) of the ancient Romans starting with the origins of the city in the 8th century BC and ending with the fall of the western empire in the 5th century AD. We'll proceed whenever possible by reading original texts and by looking at images of ancient art, archaeological sites, and later buildings and artifacts that draw heavily on ancient Rome. Among other things, we'll cover the gladiatorial games, the destruction of Pompeii, the development of public spaces, the persecution of the early Christians, and works of literature by Julius Caesar, Cicero, Vergil, Augustine, and others. We'll also pay attention to such mundane matters as clothing, hygiene, and family relationships. Along the way we'll encounter sober-minded statesmen, lovestruck poets, emperors (good and bad), gladiators, saints, soldiers, and the occasional martyr. We'll also explore the many ways in which the civilization of ancient Rome is alive, for better or worse, today.
Style: 85% Lecture, 15% Discussion.
Grading: 40% mid exam, 30% final exam, 30% journal.
Exam Format: short answer and essay

This information is accurate as of 6/9/2008 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.
that will consider how ancient and modern cultures have used these myths to explore thorny issues like identity, marriage and families, the origin of the universe, sexuality, gender, and death. We will become acquainted with the gods, heroes, and monsters of classical mythology through our study of ancient sources and also survey modern methods of myth analysis. Lectures include slide presentations of myths in ancient, renaissance, and modern art.

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

**Grading:** 20% mid exam, 30% final exam, 20% reports/papers, 30% class participation.

**Exam Format:** Short answer/ Essay

**CNES 1042H Honors Course: Greek and Roman Mythology**

4 credit(s); prereq Honors or instr consent; Credit will not be granted if credit has been received for: CNES 1042; Meets CLE req of Other Humanities Core;

**Instructor:** Cole, Spencer E

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

**CNES 3107 Age of Constantine the Great**

3 credit(s); Meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; 

**Instructor:** Nicholson, Oliver

**Description:** It is given to few deliberately to change the course of history. Constantine the Great (A.D. 306-37) was a conviction politician who adopted Christianity as his imperial religion and ended up making illegal the sacrifices which had been the core of Roman religion since time immemorial. The emperor seems to have thought the transition from paganism to Christianity would be easy; those who take this course will be able to consider how wrong he was. Constantine is at the centre of this course, but there is more to him, and to the course, than his religious revolution. We will range over the politics and culture of the years between about 250 and 363 A.D., considering the political and economic crisis of the Roman Empire in the 3rd century and its resolution by Constantine's immediate predecessors. Neoplatonic philosophy, the last Great Persecution of the Christians, art and literature as well as such phenomena as the rise of monasticism and the popularity of pilgrimage to the Holy Land. Nor will our focus be wholly on the Mediterranean Basin. We will use Persian sources to consider the politics, religion (Zoroastrianism) and art of the other great empire of the era, the Sassanian monarchy which ruled what is now modern Iran, Iraq and Afghanistan. We will consider the Germanic barbarians who threatened the Roman frontiers on the Rhine and Danube rivers. This vast diversity of folk we will read about, so far as is possible, in texts written at the time.

**Style:** lecture and discussion

**Grading:** 10% mid exam, 40% final exam, 50% reports/papers.

**Exam Format:** ‘gobbets’ - passages of ancient authors set for comment

**CNES 3172 House, Villa, Tomb: Roman Art in the Private Sphere**

1-3 credit(s), max credits 12, 4 repeats allowed;

**Instructor:** Berlin, Andrea

**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 repeat allowed; prereq instr consent; 

**Instructor:** Wells, Carol Lee

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

**CLS 5100 Virology, Mycology, and Parasitology for Medical Technologists**

A-F only, 2 credit(s); prereq microbiology course with lab, biochem course; 

**Instructor:** Wells, Carol Lee

**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 repeats allowed; prereq instr consent; 

**Instructor:** Panoskalsis-Mortari, 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:** Panoskalsis-Mortari, Angela

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

**CLS 5125 Practicum Teaching**

A-F only, 1-2 credit(s), max credits 2, 1 repeat allowed; prereq instr consent; 

**Instructor:** Tsai, Michael Y
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 6/9/2008 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 2008.

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**Course Descriptions**

**CLS 5202 Hematology II**
A-F only, 3 credit(s); prereq 5201 or CLSP 4201 or instr consent;
Instructor: Swinehart, Cheryl D
Description: Student may contact the instructor or department for information.

**CLS 5203 Hemostasis**
A-F only, 1 credit(s); prereq 5201 or CLSP 4201 or instr consent;
Instructor: Swinehart, Cheryl D
Description: Student may contact the instructor or department for information.

**CLS 5304 Clinical Chemistry II: Lecture**
A-F only, 2 credit(s); prereq [4302 or 5302], two organic chem courses with lab, one biochem course, instr consent;
Instructor: Spannaus-Martín, Donna J
Description: Student may contact the instructor or department for information.

**CLS 5305 Clinical Chemistry II: Laboratory**
A-F only, 2 credit(s); prereq [4302 or 5302], two organic chem courses with lab, one biochem course, instr consent;
Instructor: Spannaus-Martín, Donna J
Description: Student may contact the instructor or department for information.

**CLS 5501 Introduction to Transfusion Medicine**
A-F only, 2 credit(s); prereq instr consent;
Instructor: George, Joanna L
Description: Student may contact the instructor or department for information.

**CLS 5502 Introduction to Transfusion Medicine: Laboratory**
A-F only, 2 credit(s); prereq instr consent;
Instructor: George, Joanna L
Description: Student may contact the instructor or department for information.

**CLS 5602 Basic Concepts in Education and Research as Applied to the Clinical Laboratory.**
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 repeats allowed; prereq instr consent;
Instructor: Larsen, Karen B
Description: Student may contact the instructor or department for information.

**CLS 5864 Research Seminar**
S-N only, 1 credit(s), max credits 10, 10 repeats allowed; prereq instr consent;
Instructor: Armstrong, Sandra K
Description: Student may contact the instructor or department for information.

**CLS 5865 Departmental Seminar**
S-N only, 1 credit(s), max credits 10, 10 repeats allowed; prereq instr consent;
Instructor: Fuchtb, Leo T
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 repeat allowed; prereq instr consent;
Instructor: Tsai, Michael Y
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)

**CLSP 4088 Applied Diagnostic Microbiology**
S-N only, 2 credit(s); prereq 4102, 4101 enrolled CLSP student, instr consent;
Instructor: Solberg, Patricia Lee
Description: Student may contact the instructor or department for information.

**CLSP 4089 Specialty Rotation**
S-N only, 1 credit(s); prereq Completion of MedT preclinical professional courses, enrolled MedT student, instr consent;
Instructor: Solberg, Patricia Lee
Description: Student may contact the instructor or department for information.

**CLSP 4092 Honors Program: Laboratory Methods**
3 credit(s); prereq instr consent;
Instructor: Wells, Carol Lee
Description: Student may contact the instructor or department for information.

**CLSP 4101 Virology, Mycology, and Parasitology for Clinical Laboratory Scientists**
A-F only, 2 credit(s); prereq One microbiology course with lab, one biochem course, enrolled CLSP student, instr consent;
Instructor: Wells, Carol Lee
Description: Student may contact the instructor or department for information.

**CLSP 4127W Introduction to Management and Education I**
A-F only, 1 credit(s); prereq; Meets CLE req of Writing Intensive;
Instructor: Wiesner, Stephen Michael
Description: Student may contact the instructor or department for information.

**CLSP 4202 Hematology II**
A-F only, 3 credit(s); prereq [4201 or 5201], enrolled CLSP student, instr consent;
Instructor: Swinehart, Cheryl D
Description: Lecture and laboratory course covering the morphology of normal and abnormal blood cells. Target audience: Medical technology senior students.
Style: 33% Lecture, 66% Laboratory.
Exam Format: Multiple choice

**CLSP 4203 Hemostasis**
A-F only, 1 credit(s); prereq [4201 or 5201], enrolled CLSP student, instr consent;
Instructor: Swinehart, Cheryl D
Description: Lecture and laboratory course covering hemostasis. Theory of hemostasis and laboratory tests of plasma and platelets will be discussed. Target audience: Senior medical technology students.
Style: 86% Lecture, 33% Laboratory.
Exam Format: Multiple choice

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CLSP 4263 Comparative Hemostasis  
A-F only, 1 credit(s);  
Instructor: Swinehart, Cheryl D  
Description: Lecture course covering hemostasis in humans. Theory of hemostasis and laboratory tests of plasma and platelets will be discussed. Target audience: Veterinary Medicine students.  
Style: 100% Lecture.  
Exam Format: Multiple choice.

CLSP 4304 Clinical Chemistry II: Lecture  
A-F only, 2 credit(s); prereq [4302 or 5302], two organic chem courses with lab, one biochem course;  
Instructor: Spannaus-Martin, Donna J  
Description: Student may contact the instructor or department for information.

CLSP 4305 Clinical Chemistry II: Laboratory  
A-F only, 2 credit(s); prereq [4302 or 5302], two organic chem courses with lab, one biochem course;  
Instructor: Spannaus-Martin, Donna J  
Description: Student may contact the instructor or department for information.

CLSP 4501 Introduction to Transfusion Medicine  
A-F only, 2 credit(s);  
Instructor: George, Joanna L  
Description: Student may contact the instructor or department for information.

CLSP 4502 Introduction to Transfusion Medicine: Laboratory  
A-F only, 2 credit(s); prereq 4401 or 5401;  
Instructor: George, Joanna L  
Description: Student may contact the instructor or department for information.

CLSP 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 and morphology will also be covered. Target audience: Medical technology students who have completed their senior courses. Rotations are scheduled at various hospital/clincial sites.

CLSP 4703 Clinical Chemistry and Urinalysis  
S-N only, 3 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.

CLSP 4901 Special Laboratory Methods  
1-3 credit(s), max credits 3, 1 repeat allowed; prereq CLSP student, instr consent;  
Instructor: Wells, Carol Lee  
Description: Student may contact the instructor or department for information.

CGSC 8000 Seminar: Philosophy of the Cognitive Sciences  
3 credit(s), max credits 6; prereq Grad cog sci minor or instr consent; Credit will not be granted if credit has been received for: PHIL 8640;  
Instructor: Savage, C Wade  
Description: Student may contact the instructor or department for information.

CGSC 8001 Proseminar in Cognitive Science  
S-N only, 2 credit(s); prereq Grad cog sci minor or instr consent;  
Instructor: Fletcher, Charles R  
Description: Student may contact the instructor or department for information.

CGSC 8410 Perspectives in Learning, Perception, and Cognition  
S-N only, 2 credit(s), max credits 24, 12 repeats allowed;  
Instructor: Georgopoulous, Apostolos P  
Description: Student may contact the instructor or department for information.

CFAN 1501 Biotechnology, People, and the Environment  
A-F only, 3 credit(s); Meets CLE req of Environment Theme;  
Instructor: Young, Nevin Dale  
Description: Biotechnology, People and the Environment (CFAN 1501; Spring Semester, 3 credits) is a non-technical introduction to biotechnology, genetic engineering, and their impact on agriculture, food, medicine and the environment. The class does not have formal lab or recitation sections, but it does include discussions and demonstrations. CFAN 1501 fulfills the Environment Theme of the Council on Liberal Education. Along with readings, CFAN 1501 requires: 1) internet-based activities, 2) a personal biotechnology journal, and 3) a public perception survey on biotechnology. CFAN is organized into four blocks. The course begins with a brief overview/introduction to genetic engineering technology, followed by the biotechnology of plants (including genetically modified foods and crops), biotechnology of microbes (including bioremediation, biocontrol, and food microbiology), and the biotechnology of animals and medicine (including biopharmaceuticals, genetic screening, genome sequencing, animal cloning, bioterrorism, and genetic therapy).  
Style: 65% Lecture, 10% Discussion, 15% Small Group Activities, 5% Demonstration, 5% Guest Speakers.  
Grading: 40% mid exam, 20% final exam, 15% special projects, 5% quizzes, 20% journal. There are generally three exams during the semester and each is worth 20%.  
Exam Format: Exams are generally 25% multiple choice; 25% matching; 25% short answer; 25% essay question.

CFAN 3000 Directed Studies in International Agriculture  
A-F only, 2-4 credit(s), max credits 8, 3 repeats allowed; prereq instr consent;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

CFAN 3001 Pests and Crop Protection  
A-F only, 3 credit(s); prerequisite Biol 1009 or equiv or instr consent;
CFAN 3100H Honors Experience
A-F only, 2-3 credit(s), max credits 6; prereq honors student;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

CFAN 3500 International Field Studies Seminar
A-F only, 1-3 credit(s), max credits 6; prereq instr consent;
Instructor: Vreyens, John Robert
Description: This class is taught at Greencastle Estate, located in St. Mary’s Parish on the north coast. Greencastle is a 560 ha organic ranch which produces tropical fruits and vegetables as well as Jamaican beef cattle. Students stay on the Estate and in a small hotel in the nearby town of Robins Bay. Cultural activities guided by Jamaican liaisons are part of the class. The final two days include snorkeling at the Discovery Bay marine lab and one-day, two-nights respite at an all-inclusive resort in Montego Bay before returning to the States. The objectives of the course are to help students understand tropi-cal land use/land quality relationships through experiential and active learning activities. The focus in this course is discovery. Teams will measure along transects to understand the quality of, and human impacts to the beach and the coral reef. We analyze fish, substrate and aquatic insects in streams and rivers. Throughout the class, the group will talk indepth about what we saw and learned, and connect our learning to environmental management. Students must be able to swim, to walk and work in rigorous outdoor settings, and be willing to work in groups. Estimated costs $2,750. Dr. Jim Perry leads this group in Jamaica. Dates of travel are: January 3 to 15, 2008.

CFAN 3500 International Field Studies Seminar
A-F only, 1-3 credit(s), max credits 6; prereq instr consent;
Instructor: Vreyens, John Robert
Description: Based at the Agricultural College Plantahof in Chur, this course explores several different types of farming operations in Switzerland. The agriculture systems that will be visited include animal, orchards, vineyards and vegetable production both in valleys and in the mountains. Opportunities will be provided to visit cooperatives, a cheese factory and meet with local farmers and representatives in Landquart. Tourism abounds in the region alongside agriculture. Students will be able to experience a mountain hike, climb a glacier and even take the longest toboggan ride in the world—nearly 3 km long! All students will have a home stay with farmers in locations in the Alps near the summer pastures for cattle. This course includes visits to the historic cities of Chur, Zurich and Bern. Estimated cost is $3,400. Ms. Julie Tesch leads the group. Dates of travel are: May 17 to 25, 2008 tentative.

CFAN 3500 International Field Studies Seminar
A-F only, 1-3 credit(s), max credits 6; prereq instr consent;
Instructor: Vreyens, John Robert
Description: This course will provide participants with a brief overview of Thailand's culture and conservation challenges and then focus on applying a set of well-developed field survey and conservation tools. The course begins with a 2-day trip up Thailand's central waterway on a live-aboard barge designed for research and education. The group then travels to Thailand's premier conservation research site which will provide a comfortable home base for daily field activities and a launching point for a wilderness trip to more remote parts of western Thailand. Many activities will revolve around and contribute to a long-term tiger conservation project of which UMN has been a principle partner. Specific activities will include camera trapping techniques, prey assessment methods and radio-telemetry approaches to the study of large mammals. Estimated costs $3,000. Dr. Dave Smith and Mr. Pete Cutter lead this group to Thailand. Dates of travel are: December 27 to January 18, 2008.

CFAN 3500 International Field Studies Seminar
A-F only, 1-3 credit(s), max credits 6; prereq instr consent;
Instructor: Vreyens, 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 3900 Topics in International Agriculture
A-F only, 2-4 credit(s), max credits 25, 10 repeats allowed;
prereq instr consent;
Instructor: Vreyens, John Robert
Description: Student may contact the instructor or department for information.

CFAN 3900 Topics in International Agriculture
A-F only, 2-4 credit(s), max credits 25, 10 repeats allowed;
prereq instr consent;
Instructor: Vreyens, John Robert
Description: Student may contact the instructor or department for information.

CFAN 3900 Topics in International Agriculture
A-F only, 2-4 credit(s), max credits 25, 10 repeats allowed;
prereq instr consent;
Instructor: Vreyens, John Robert
Description: Student may contact the instructor or department for information.

CFAN 3900 Topics in International Agriculture
A-F only, 2-4 credit(s), max credits 25, 10 repeats allowed;
prereq instr consent;
Instructor: Vreyens, John Robert
Description: Student may contact the instructor or department for information.

CFAN 3900 Topics in International Agriculture
A-F only, 2-4 credit(s), max credits 25, 10 repeats allowed;
prereq instr consent;
Instructor: Vreyens, John Robert
Description: Student may contact the instructor or department for information.

CFAN 3900 Topics in International Agriculture
A-F only, 2-4 credit(s), max credits 25, 10 repeats allowed;
prereq instr consent;
Instructor: Vreyens, John Robert
Description: Student may contact the instructor or department for information.

CFAN 3900 Topics in International Agriculture
A-F only, 2-4 credit(s), max credits 25, 10 repeats allowed;
prereq instr consent;
Instructor: Vreyens, John Robert
Description: Student may contact the instructor or department for information.

CFAN 3900 Topics in International Agriculture
A-F only, 2-4 credit(s), max credits 25, 10 repeats allowed;
prereq instr consent;
Instructor: Vreyens, John Robert
Description: Student may contact the instructor or department for information.

CFAN 3900 Topics in International Agriculture
A-F only, 2-4 credit(s), max credits 25, 10 repeats allowed;
prereq instr consent;
Instructor: Vreyens, John Robert
Description: Student may contact the instructor or department for information.

CFAN 4009W Undergraduate Senior Thesis: Science in Agriculture
A-F only, 1-6 credit(s), max credits 12, 12 repeats allowed;
prereq jr or sr major in ScAg, instr consent;
Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

CFAN 4201 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;
CFAN 4201 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: Newberg, Sara Nagel
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. It is recommended that you have 45+ credits before registering for this course. This half-semester 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 4201 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: Joycechild, Lisa Dewey
Description: Student may contact the instructor or department for information.

CFAN 5500 International Field Studies Seminar
A-F only, 1-3 credit(s), max credits 6; prereq instr consent
Instructor: Vreyens, 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 5500 International Field Studies Seminar
A-F only, 1-3 credit(s), max credits 6; prereq instr consent
Instructor: Vreyens, John Robert
Description: This course will provide participants with a brief overview of Thailand's culture and conservation challenges and then focus on applying a set of well-developed field survey and conservation tools. The course begins with a 2-day trip up Thailand's central waterway on a live-aboard barge designed for research and education. The group then travels to Thailand's premier conservation research site which will provide a comfortable home base for daily field activities and a launching point for a wilderness trip to more remote parts of western Thailand. Many activities will revolve around and contribute to a long-term tiger conservation project of which UMN has been a principle partner. Specific activities will include camera trapping techniques, prey assessment methods and radio-telemetry approaches to the study of large mammals. Estimated costs $3,000. Dr. Dave Smith and Mr. Pete Cutter lead this group to Thailand. Dates of travel are: December 27 to January 18, 2008.

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
Instructor: STAFF
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 International Perspect Theme; meets CLE req of Literature Core; 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 3110 Topics in Speech-Communication: Famous Speeches
3 credit(s), max credits 15, 5 repeats allowed; prereq [3211 or 3401 or 3601 [whichever is relevant to topic]]
Instructor: Campbell, Karlyn Kohrs
Description: Student may contact the instructor or department for information.

COMM 3110 Topics in Speech-Communication
3 credit(s), max credits 15, 5 repeats allowed; prereq [3211 or 3401 or 3601 [whichever is relevant to topic]]
Instructor: Helwich, David A
Description: Student may contact the instructor or department for information.

COMM 3201 Introduction to Electronic Media Production
A-F only, 4 credit(s)
Instructor: STAFF
Description: Student may contact the instructor or department for information.

COMM 3211 Introduction to U.S. Electronic Media
3 credit(s)
Instructor: Rodman, Gilbert B
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 3401 Introduction to Communication Theory
3 credit(s); prereq 1101;
Instructor: Hewes,Dean E
Description: Student may contact the instructor or department for information.

COMM 3402 Introduction to Interpersonal Communication
3 credit(s); Meets CLE req of Social Science Core;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

COMM 3409 Nonverbal Communication
3 credit(s);
Instructor: Jones,Susanne Margarethe
Description: The world of nonverbal communication! We are communicating nonverbally all the time, whether we want to or not. Right now, as you're reading these words, you're communicating nonverbally through your posture, your facial (non)expressions, your smell, your gestures, the seat you've chosen in this class, and your clothes. This course is designed to acquaint you with the pragmatics of nonverbal communication. Specifically, you will learn more about the importance, function, and meaning of nonverbal communication in the interpersonal communication process. In the first half of the course we will examine the structure of nonverbal communication by investigating several nonverbal codes, such as touch (haptics), personal distance (proxemics), and gestures (kinesics). In the second half of the course we will explore how these nonverbal codes work together to fulfill important communicative functions (e.g., deception, courtship, influencing) in various relational contexts (e.g., friendships, close relationships). In order to achieve these objectives I use various teaching tools, such as lectures, movies, in-class discussions, in-class exercises, assignments, research papers, and exams.
Style: 75% Lecture, 25% Discussion.
Grading: 16% mid exam, 12% final exam, 50% reports/papers, 10% quizzes, 12% for second exam
Exam Format: multiple choice

COMM 3411 Introduction to Small Group Communication
3 credit(s);
Instructor: STAFF
Description: Student may contact the instructor or department for information.

COMM 3422 Interviewing and Communication
A-F only, 3 credit(s); prereq 1101 or instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

COMM 3431 Persuasion Theories
3 credit(s); prereq Soph recommended; Meets CLE req of Social Science Core;
Instructor: STAFF
Description: This course is designed to familiarize you with the complex and dynamic phenomenon of persuasion as a form of human communication. There are three basic objectives for the course: 1) To be able to understand the concept of persuasion from a theoretical perspective, and be familiar with the research findings on the persuasion process. 2) To demonstrate understanding of the process of persuasion in a variety of communication contexts, through oral and written exercises. 3) To be a critical consumer of persuasive messages.
Style: 80% Lecture, 20% Discussion.
Grading: 12% mid exam, 12% final exam, 25% reports/papers, 12% special projects, 25% quizzes, 12% class participation.
Exam Format: Mixture of multiple choice and short answer/definition questions

COMM 3432W Rhetoric of Feminism
3 credit(s); Meets CLE req of Writing Intensive;
Instructor: Campbell,Karlyn Kohrs
Description: This course will critically examine the claim that females and males use language differently by looking at actual language use. We examine how language constructs and evaluates normative and non-normative sexualities and genders. Possible topics: the relationship between gender, sexualities, language and power; practices that create conversational dominance and silencing; gender and sexuality as dualism and/or multiplicity; linguistic stereotypes of gender; gender as linguistic stylization; language as a resource to perform gender and sexual orientation; language issues in LGB, and T communities; what slang can tell us about how a culture views gender and sexuality; sexist and nonsexist language and language reform; etc. Language contexts include, but are not limited to: everyday conversational interactions that create (close) personal relationships, personal narratives, talk in public

COMM 3433W Outlaws
3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme;
Instructor: Rodman,Gilbert B.
Description: Student may contact the instructor or department for information.

COMM 5110 Special Topics in Communication Theory: Media
3 credit(s), max credits 6;
Instructor: Sheldon,Amy
Description: This course will critically examine the claim that females and males use language differently by looking at actual language use. We examine how language constructs and evaluates normative and non-normative sexualities and genders. Possible topics: the relationship between gender, sexualities, language and power; practices that create conversational dominance and silencing; gender and sexuality as dualism and/or multiplicity; linguistic stereotypes of gender; gender as linguistic stylization; language as a resource to perform gender and sexual orientation; language issues in LGB, and T communities; what slang can tell us about how a culture views gender and sexuality; sexist and nonsexist language and language reform; etc. Language contexts include, but are not limited to: everyday conversational interactions that create (close) personal relationships, personal narratives, talk in public

COMM 5261 Political Economy of Media Culture
3 credit(s); prereq 3211 or instr consent; Credit will not be granted if the student has already completed: Spch 5261;
Instructor: Vavrus,Mary Douglas
Description: Student may contact the instructor or department for information.
spaces (e.g., classrooms, courtrooms, workplaces, etc.), non-face-to-face conversations: online, media, fantasy phone lines. Students will observe their own and others’ everyday speech. Term projects (including senior papers, M.A. and Ph.D. papers) can be started early and developed with guidance across the semester. The focus is on English but comparisons across languages are welcome. Texts: Eckert & McConnell-Ginet. 2001. Language & Gender. Oxford; Hall & Bucholtz. 1995. Gender Articulated. Routledge. And electronic reserve readings. Prerequisite: One course in feminist studies or the equivalent, or permission of the instructor. If you have questions, or need a permission number to register, please contact Prof. Amy Sheldon, asheldon@umn.edu

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 5461 Conversation Analysis 3 credit(s); prereq Ling 3001 or Ling 5001; Credit will not be granted if credit has been received for: LING 5461; Instructor: Sheldon,Amy Description: Student may contact the instructor or department for information.

COMM 5615W Introduction to Rhetorical Criticism 3 credit(s); prereq 1101; 3601 recommended; Meets CLE req of Writing Intensive; Instructor: Wilson,Kirt H Description: Student may contact the instructor or department for information.

COMM 8210 Seminar: Selected Topics in U.S. Electronic Media 3 credit(s), max credits 6; prereq 5210 or instr consent; offered when feasible; Instructor: Ouellette,Laurie Jean Description: Student may contact the instructor or department for information.

COMM 8402 Seminar: Interpersonal Communication 3 credit(s); prereq 5402 or instr consent; Instructor: Jones,Susanne Margarette Description: Student may contact the instructor or department for information.

COMM 8451 Seminar: Intercultural and Diversity Research 3 credit(s); prereq instr consent; Instructor: Albert,Rosita D Description: Student may contact the instructor or department for information.

COMM 8504 Seminar: Rhetorical Criticism 3 credit(s); prereq 5615 or instr consent; Instructor: Wilson,Kirt H Description: Student may contact the instructor or department for information.

### Comparative Literature

**235 Nicholson Hall**

CL 5555 Introduction to Semiotics 3 credit(s); Instructor: Pepper,Thomas Adam Description: This course is a rigorous introduction to the thought of the sign during this last century. The emphasis is on the word "thought", that is to say, on the way in which semiotics, far from being an isolated discipline, is essentially related to all its neighbors, including: anthropology, feminism, linguistics, literature, marxism, philosophy, psychoanalysis. Readings include: Althusser, Austin, Barthes, Borges, Deleuze, Derrida, Eichenbaum, Foucault, Freud, Jakobson, Kristeva, Mitchell and Rose, Lacan, Levinas, Levi-Strauss, Lotman, Peirce, Saussure, Shklovsky, Wimsatt and Beardsley, Winnicott. Style: 70% Lecture, 30% Discussion. Grading: 70% reports/papers, 10% in-class presentation, 20% class participation. Exam Format: Paper

CL 5992 Directed Reading in Comparative Literature 1-3 credit(s), max credits 9, 9 repeats allowed; prereq instr consent; Instructor: STAFF Description: Student may contact the instructor or department for information.

CL 8002 Basic Seminar in Comparative Literature II 3 credit(s); Instructor: Schulte-Sasse,Jochen Description: Student may contact the instructor or department for information.

CL 8901 Pedagogy of Cultural Studies and Comparative Literature 3 credit(s); prereq Grad comp lit major; Credit will not be granted if credit has been received for: C SDS 8901; Instructor: Brown Jr,Robert L Description: Student may contact the instructor or department for information.

CL 8910 Advanced Topics in Comparative Literature: Dialectics 3 credit(s), max credits 24, 8 repeats allowed; Instructor: Ganguly,Keya Description: Student may contact the instructor or department for information.

CL 8910 Advanced Topics in Comparative Literature: Heidegger/Foucault 3 credit(s), max credits 24, 8 repeats allowed; Instructor: Pepper,Thomas Adam Description: Student may contact the instructor or department for information.

CL 8910 Advanced Topics in Comparative Literature: (Post)Colonial Translation 3 credit(s), max credits 24, 8 repeats allowed; Instructor: Tageldin,Shaden M Description: Since their first invocations by Noel and de Laplace in France (1816) and by Goethe in Germany (1827), comparative literature and its corollary, world literature, have defied easy definition: a problem, perhaps, all to the good. In this graduate seminar, we will address ourselves to questions that have vexed the field since its inception. If the act of comparison presupposes both the similarity and dissimilarity of two things, what does it mean to "compare" literatures or to study "comparative" literature? If comparison establishes equivalence between two things only to claim the superiority of one over the other or to mask the inequality of one to the other, what are its ethics of commensurability and incommensurability? How do we liberate--indeed can we liberate--comparative literature from the tautological tyranny of difference and likeness? Our objectives in this seminar will be twofold. The first half of the course will focus on the history of comparative literature and on foundational texts in the field. Taking as our points of departure the works of Bassnett and Miles on the history of the discipline, we will read early texts in U.S. comparative literature (Shackford, 1876, and Gayley, 1903). We will then look at nineteenth-century articulations of the field in France, Germany, and Britain; from Goethe on _Weltliteratur_ (1827) to Chasles on comparative literature (1835), from de Lomnitz's arresting mobilization of Weltliteratur in defense of "minor" literatures (1877) to Posnett's social Darwinist approach to national and world literatures (1886) to Benjamin's translation theory (1923). From these beginnings we will discuss key works in the post-WWII incarnation of the field (1942-1970), focusing on Warren, Wellek, Auerbach, Spitzer, Etchemibe, and Levin. Finally, we will consider
contemporary states of the field in the West and in the Arab world, India, China, and Africa. In the second half of the course, we will examine recent engagements with the meaning, method, and scope of comparative literature and consider how these engagements—and the new (or not-so-new) directions they propose—might hark back to prior texts in the history of the field.

We will focus on four axes of critical debate: 1) Comparative, world, or planetary literature? (Damrosch, Casanova, Spivak); 2) Methods of comparison: close vs. distant reading, philology vs. science (Spivak, Said, Quayson, Moretti); 3) The translational turn and (post)colonial failures of translatability (Apter, Melas); and 4) The cultural turn and the changing status of the "literary." In discussions and in final papers, seminar participants are encouraged to relate their own research to these problems. By semester’s end, we will come away with a sharper sense of the history of our field; its periodic reengagement of the relationship of the "literary" to geopolitics, science, and linguistic and economic exchange; and its struggle to replace a Eurocentric worldview with a polycentric vision.

Comparative Studies in Discourse and Society
235 Nicholson Hall

CSDS 5555 Introduction to Semiotics
3 credit(s);
Instructor: Pepper, Thomas Adam
Description: This course is a rigorous introduction to the thought of the sign during this last century. The emphasis is on the word "thought," that is to say, on the way in which semiotics, far from being an isolated discipline, is essentially related to all its neighbors, including: anthropology, feminism, linguistics, literature, Marxism, philosophy, psychoanalysis. Readings include: Althusser, Austin, Barthes, Borges, Deleuze, Derrida, Eichenbaum, Foucault, Freud, Jakobson, Kristeva, Mitchell and Rose, Lacan, Levinas, Levi-Strauss, Lotman, Peirce, Saussure, Shklovsky, Winnicott, and Beardsley, Winnicott.
Style: 70% Lecture, 30% Discussion.
Grading: 70% reports/papers, 10% in-class presentation, 20% class participation.
Exam Format: Paper

CSDS 5993 Directed Study
1-3 credit(s), max credits 9, 9 repeats allowed; prerequisite; Instructor: STAFF
Description: Directed study - arranged

CSDS 8002 Basic Seminar in Comparative Studies in Discourse and Society II
3 credit(s);
Instructor: Schulte-Sasse, Jochen
Description: Student may contact the instructor or department for information.

CSDS 8901 Pedagogy of Cultural Studies and Comparative Literature
3 credit(s); prerequisite Grad CSDS major; Credit will not be granted if credit has been received for: CL 8901;
Instructor: Brown Jr, Robert L
Description: Student may contact the instructor or department for information.

CSDS 8910 Advanced Topics in Comparative Studies in Discourse and Society: Dialectics
3 credit(s), max credits 24, 8 repeats allowed;
Instructor: Ganguly, Keya
Description: Student may contact the instructor or department for information.

CSDS 8910 Advanced Topics in Comparative Studies in Discourse and Society: Heidegger/Foucault
3 credit(s), max credits 24, 8 repeats allowed;
Instructor: Pepper, Thomas Adam
Description: Student may contact the instructor or department for information.

CSDS 8910 Advanced Topics in Comparative Studies in Discourse and Society: (Post)Colonial Translation
3 credit(s), max credits 24, 8 repeats allowed;
Instructor: Tageldin, Shaden M
Description: Since their first invocations by Noel and de Laplace in France (1816) and by Goethe in Germany (1827), comparative literature and its corollary, world literature, have defined easy definition: a problem, perhaps, all to the good. In this graduate seminar, we will address ourselves to questions that have vexed the field since its inception. If the act of comparison presupposes both the similarity and dissimilarity of two things, what does it mean to "compare" literatures or to study "comparative" literature? If comparison establishes equivalence between two things only to claim the superiority of one over the other or to mask the inequality of one to the other, what are its ethical of commensurability and incommensurability? How do we liberate—indeed can we liberate—comparative literature from the tautological tyranny of difference and likeness? Our objectives in this seminar will be twofold. The first half of the course will focus on the history of comparative literature and on foundational texts in the field. Taking as our points of departure the work of Bassnett and Melas on the history of the discipline, we will read early texts in U.S. comparative literature (Shackford, 1876, and Gayley, 1903). We will then look at nineteenth-century articulations of the field in France, Germany, and Britain: from Goethe on _Weltliteratur_ (1827) to Chasles on comparative literature (1835), from de Lomnit’s arresting mobilization of _Weltliteratur_ in defense of “minor” literatures (1877) to Posnett’s social Darwinist approach to national and world literatures (1886) to Benjamin’s translation theory (1923). From these beginnings we will discuss key works in the post-WWII incarnation of the field (1942-1970), focusing on Warren, Wellek, Auerbach, Spitzer, Eitemble, and Levin. Finally, we will consider contemporary states of the field in the West and in the Arab world, India, China, and Africa. In the second half of the course, we will examine recent engagements with the meaning, method, and scope of comparative literature and consider how these engagements—and the new (or not-so-new) directions they propose—might hark back to prior texts in the history of the field.

We will focus on four axes of critical debate: 1) Comparative, world, or planetary literature? (Damrosch, Casanova, Spivak); 2) Methods of comparison: close vs. distant reading, philology vs. science (Spivak, Said, Quayson, Moretti); 3) The translational turn and (post)colonial failures of translatability (Apter, Melas); and 4) The cultural turn and the changing status of the “literary.”

In discussions and in final papers, seminar participants are encouraged to relate their own research to these problems. By semester’s end, we will come away with a sharper sense of the history of our field; its periodic reengagement of the relationship of the “literary” to geopolitics, science, and linguistic and economic exchange; and its struggle to replace a Eurocentric worldview with a polycentric vision.

Comparative and Molecular Biosciences

CMB 5381 Pathogenesis of Infectious Zoonotic Diseases
A-F only, 3 credit(s); prerequisite [Microbiology, biochemistry] courses or instr consent;
Instructor: Ji, Yinduo
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 repeats allowed; prerequisite Jr;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

This information is accurate as of 6/9/2008 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.
CMB 5910 Grantwriting: What Makes a Winning Proposal?  
S-N only, 1 credit(s); Credit will not be granted if credit has been received for: VMED 5910;  
Instructor: Rutherford, Mark Stephen  
Description: Student may contact the instructor or department for information.

CMB 8100 Research Rotation in Comparative and Molecular Biosciences  
A-F only, 4 credit(s), max credits 8; prereq 1st yr CMB grad student;  
Instructor: Walcheck, Bruce Kenneth  
Description: Student may contact the instructor or department for information.

CMB 8303 Comparative Models of Disease  
A-F only, 2 credit(s); prereq Enrollment in a biological sciences grad program or instr consent;  
Instructor: Collister, John Peter  
Description: Student may contact the instructor or department for information.

CMB 8335 Molecular Biology Techniques  
3 credit(s); prereq Biol 5001, Biol 5003 or equiv or instr consent; Credit will not be granted if credit has been received for: ANSC 8131;  
Instructor: Foster, Douglas N  
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 repeats allowed; prereq Grad CMB major;  
Instructor: Walcheck, Bruce Kenneth  
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 repeats allowed; prereq Biol Sciences grad student;  
Instructor: Vulchanova, Lucy  
Description: Student may contact the instructor or department for information.

CMB 8550 Research and Literature Reports  
S-N only, 1 credit(s), max credits 8, 8 repeats allowed; prereq Grad CMB major or instr consent;  
Instructor: Skinner, Pamela Jo  
Description: Student may contact the instructor or department for information.

CMB 8550 Research and Literature Reports  
S-N only, 1 credit(s), max credits 8, 8 repeats allowed; prereq Grad CMB major or instr consent;  
Instructor: Walcheck, Bruce Kenneth  
Description: Student may contact the instructor or department for information.

CMB 8550 Research and Literature Reports  
S-N only, 1 credit(s), max credits 8, 8 repeats allowed; prereq Grad CMB major or instr consent;  
Instructor: Godden, Sandra Michele  
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 repeats allowed; prereq Biol sciences grad student;  
Instructor: St. Hill, Catherine  
Description: Student may contact the instructor or department for information.

CSCI 113 Introduction to C/C++ Programming for Scientists and Engineers  
4 credit(s); prereq Math 1271 or Math 1371;  
Instructor: Swanston, 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

CSCI 1121 Introduction to the Internet 1  
A-F only, 4 credit(s);  
Instructor: Sturtivant, Carl  
Description: Student may contact the instructor or department for information.

CSCI 1901 Structure of Computer Programming I  
4 credit(s); prereq Concurrent registration is required (or allowed) in MATH 1271 or equiv or instr consent;  
Instructor: Carls, John Vincent  
Description: Student may contact the instructor or department for information.

CSCI 1902 Structure of Computer Programming II  
4 credit(s); prereq 1901 or instr consent;  
Instructor: Dovolis, Chris John  
Description: CSCI 1902 is an object oriented programming course that builds on the fundamentals of design, abstraction and algorithm development presented the prerequisite course CSCI 1901. Students will use their knowledge of data abstraction, objects, iterative and recursive algorithm design, and problem solving as they are introduced to object oriented programming with Java. Classic data structures and algorithms will provide the context for practical application of object design and implementation. Included are basic Java syntax, structure, control constructs, classes, and programming techniques. Data structures covered include queues, stacks, trees, and related fundamental algorithms. Upon completing this course students should be able to write moderately complex object oriented Java programs that make appropriate use of the data structures and algorithms presented. The programming project component of this course is substantial and includes a simulation project. CSCI 1902 is a required course for CSci majors, and is a prerequisite for many of the higher level CSci courses.  
Style: 70% Lecture, 30% Discussion.  
Grading: 30% mid exam, 30% final exam, 40% laboratory evaluation.  
Exam Format: Programming, short answer, and some writing

CSCI 2011 Discrete Structures of Computer Science  
4 credit(s); prereq MATH 1271 or MATH 1371 or instr consent;  
Instructor: Sturtivant, Carl  
Description: Student may contact the instructor or department for information.

CSCI 2021 Machine Architecture and Organization  
4 credit(s); prereq 1902 or instr consent;  
Instructor: Yew, Pen-Chung  
Description: Student may contact the instructor or department for information.

CSCI 2031 Introduction to Numerical Computing  
4 credit(s); prereq Math 2243 or instr consent; Credit will not
be granted if credit has been received for: CSCI 5301;
Instructor: Roumeliotis,Stergios
Description: Student may contact the instructor or department for information.

CSCI 3081W Program Design and Development
4 credit(s); prereq [1902, 2021] or instr consent; Meets CLE req of Writing Intensive;
Instructor: VanWyk,Eric
Description: Student may contact the instructor or department for information.

CSCI 3921W Social, Legal, and Ethical Issues in Computing
3 credit(s); prereq At least soph or instr consent; Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive;
Instructor: Sturtivant,Carl
Description: Computing technology is having profound effects on society, providing many benefits in communication, commerce, science, and medicine. Our increasing reliance on computers has created many challenges, however. The Internet generates concerns about privacy, freedom of speech, and intellectual property rights. We have also seen how the World Wide Web can make us vulnerable to attacks through worms and viruses. This course will consider these topics within a framework of computer ethics.
Style: 60% Lecture, 20% Discussion. in class exercises
Grading: 15% mid exam, 50% reports/papers, 15% special projects, 5% quizzes, 10% class participation, 5% problem solving.
Exam Format: short answer

CSCI 3970 Industrial Student Co-op Assignment
S-N only, 2 credit(s), max credits 4; prereq CSci, in co-op program, instr consent
Instructor: Swanson,Charles D
Description: Student may contact the instructor or department for information.

CSCI 4011 Formal Languages and Automata Theory
4 credit(s); prereq [1902, 2011] or instr consent
Instructor: Hopper,Nicholas J
Description: Student may contact the instructor or department for information.

CSCI 4041 Algorithms and Data Structures
4 credit(s); prereq 1902 and 2011 or instr consent; cannot be taken for grad CSci cr
Instructor: Banerjee,Arindam
Description: Student may contact the instructor or department for information.

CSCI 4061 Introduction to Operating Systems
4 credit(s); prereq 2021 or EE 2361; no cr for grads in CSci;
Instructor: STAFF
Description:

CSCI 4107 Introduction to Computer Graphics Programming
3 credit(s); prereq 4041 or instr consent; cannot be taken for grad CSci cr; Credit will not be granted if credit has been received for: CSCI 5107;
Instructor: Meyer,Gary W
Description: Student may contact the instructor or department for information.

CSCI 4131 Internet Programming
3 credit(s); prereq 4061, 4211 recommended, cannot be taken for grad CSci cr; Credit will not be granted if credit has been received for: CSCI 5131;
Instructor: Stutlvant,Carl
Description: JavaScript enhancement of HTML documents; CGI programming in Perl using CGI.pm; Java servlet programming as an alternative to CGI programming in Perl; CGI programming in Perl with database servers via DBI.pm; Socket programming in both Perl and Java; clients, servers and protocols; Perl programming with ftp, telnet, ssh, mail protocols, etcetera.

Style: 100% Lecture.
Grading: 10% mid exam, 35% final exam, 55% other evaluation.
Programming assignments
Exam Format: Essay

CSCI 4203 Computer Architecture
4 credit(s); prereq 2021 or instr consent 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;
Instructor: Sapatnekar,Sachin Suresh
Description: Student may contact the instructor or department for information.

CSCI 4211 Introduction to Computer Networks
3 credit(s); prereq 4061 or instr consent; basic knowledge of [computer architecture, operating systems] recommended, cannot be taken for grad CSci cr; Credit will not be granted if credit has been received for: CSCI 5211;
Instructor: He,Tian
Description: Student may contact the instructor or department for information.

CSCI 4211 Introduction to Computer Networks
3 credit(s); prereq 4061 or instr consent; basic knowledge of [computer architecture, operating systems] recommended, cannot be taken for grad CSci cr; Credit will not be granted if credit has been received for: CSCI 5211;
Instructor: Raabe,John J
Description: Student may contact the instructor or department for information.

CSCI 4707 Practice of Database Systems
3 credit(s); prereq 4041 or instr consent; Credit will not be granted if credit has been received for: CSCI 5707;
Instructor: Shekar,Shashi
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Swanson,Charles D
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Carlis,John Vincent
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Dovolis,Chris John
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Collins,John
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Karypis,George
Description:
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Hopper,Nicholas J
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Yew,Pen-Chung
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats 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 repeats 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 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Shekhar,Shashi
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Tripathi,Anand R
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats 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 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Booley,Daniel L
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats 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 repeats 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 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Janardan,Ravi
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Saad,Yousef
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats 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 repeats 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 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Shragowitz,Eugene
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats 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 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Shragowitz,Eugene
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Shekhar,Shashi
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Heimdahl,Mats Per
Description: Student may contact the instructor or department for information.

CSCI 4970W Advanced Project Laboratory
3 credit(s), max credits 9, 3 repeats allowed; prereq Upper div CSci, 4061, instr consent; cannot be taken for grad cr;
Meets CLE req of Writing Intensive;
Instructor: Shragowitz,Eugene
Description: Student may contact the instructor or department for information.
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For more information, please contact the instructor or department.
3 credit(s); prereq 5103 or instr consent  
**Instructor:** Chandra, Abhishek  
**Description:** Student may contact the instructor or department for information.

**CSCI 5125 Collaborative and Social Computing**  
3 credit(s); prereq 5115 or instr consent  
**Instructor:** Konstan, Joseph Andrew  
**Description:** Student may contact the instructor or department for information.

**CSCI 5131 Advanced Internet Programming**  
3 credit(s); prereq 5106 or 5211 or instr consent; [4081 or 5801], 5707 recommended; Credit will not be granted if credit has been received for: CSCI 4131;  
**Instructor:** Tripathi, Anand R  
**Description:** Student may contact the instructor or department for information.

**CSCI 5161 Introduction to Compilers**  
3 credit(s); prereq [2011, 5106] or instr consent  
**Instructor:** Hsu, Wei Chung  
**Description:** This course covers principles and techniques of programming language processing tools, especially compilers which translate programs written in high level languages to machine codes. It introduces the general organization of a compiler including a lexical scanner, a syntax parser, a symbol table, an internal representation of the program and a code generator. The course explains the relationship between designing the grammar for a programming language and implementing it in a compiler. It also overviews run-time organization, error handling, semantic analysis and code generation. There are a few significant programming assignments that allow students to learn how to build a simple compiler. The programming assignments expose students to critical software development techniques such as design, implementation, test and debugging. The classic "Dragon book" (Alfred V Aho, Ravi Sethi, and Jeffrey D Ullman, "Compilers: Principles, Techniques, and Tools", Addison-Wesley, 1986) is the main text. This course is designed for both undergraduate (senior) and graduate students.  
**Style:** 80% Lecture, 10% Discussion, 10% Laboratory.  
**Grading:** 25% mid exam, 25% final exam, 50% laboratory evaluation.  
**Exam Format:** multiple choice and essay

**CSCI 5221 Foundations of Advanced Networking**  
3 credit(s); prereq 4211 or 5211 or equiv; intro course in computer networks recommended  
**Instructor:** Zhang, Zhi-Li  
**Description:** Student may contact the instructor or department for information.

**CSCI 5302 Analysis of Numerical Algorithms**  
3 credit(s); prereq 2031 or instr consent  
**Instructor:** Boley, Daniel L  
**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:** Janardhan, Ravi  
**Description:** Student may contact the instructor or department for information.

**CSCI 5471 Modern Cryptography**  
3 credit(s); prereq [2011, 4041, [familiarity with number theory or finite fields]] or instr consent  
**Instructor:** Kim, Yongdae  
**Description:** Overview (3.0 or; prereq [2011, 4041, [familiarity with number theory or finite fields]] or permission from Instructor) Introduction to cryptography. Theoretical foundations, practical applications. Threats, attacks, and countermeasures, including cryptosystems and cryptographic protocols. Secure systems/networks. History of cryptography, encryption (conventional, public key), digital signatures, hash functions, message authentication codes, identification, authentication, applications. Goal The goal is to make students familiar with the foundations of computer and network security. More precisely, To learn mathematical background for cryptographic techniques To learn basic cryptographic techniques used in computer and network security To learn how secure these techniques are To learn how to use these techniques securely To learn how to apply these techniques to computer systems and Internet. Among these goals, the last two are the primary goal.  
**Style:** 90% Lecture, 10% Discussion.  
**Grading:** 20% mid exam, 30% final exam, 30% special projects, 4% class participation, 16% problem solving.  
**Exam Format:** Problem solving and brief essay (5 lines maximum)

**CSCI 5511 Artificial Intelligence I**  
3 credit(s); prereq 2011 or instr consent;  
**Instructor:** Gini, Maria L  
**Description:** Textbooks: Stuart Russell and Peter Norvig, "Artificial Intelligence: A Modern Approach," Prentice-Hall, second edition, 2003 (Chapters 1-11). Paul Graham, "ANSI Common Lisp," Prentice Hall, 1996. Prerequisites: Knowledge of data structures (graphs and trees) and of formal logic (propositional and predicate calculus). Course Objectives: To provide in-depth understanding of the foundations of Artificial Intelligence, with special emphasis on search algorithms and knowledge representation. The course is suitable for students who want to gain a solid technical background in the field and as a preparation for more advanced work in AI. The course is for undergraduate and graduate students. The course will rely in active learning, by using a combination of lectures, in class discussion, and other in class activities. The material from the textbook will be supplemented with some technical papers that will show how to apply the concepts and algorithms to real world problems. For instance, we may look at how airlines search for flights to answer user queries, how search algorithms are used in auctions, how knowledge representation is used to build ontologies and in the semantic web.  
**Style:** 60% Lecture, 20% Discussion, 20% Small Group Activities.  
**Grading:** 15% mid exam, 20% final exam, 15% special projects, 25% written homework, 15% additional semester exams, 10% class participation.  
**Exam Format:** Problem solving

**CSCI 5512W Artificial Intelligence II**  
3 credit(s); prereq [STAT 3021, 4041] or instr consent;  
Credit will not be granted if credit has been received for: CSCI 5519; Meets CLE req of Writing Intensive;  
**Instructor:** Schuler, William Edward  
**Description:** Student may contact the instructor or department for information.

**CSCI 5561 Computer Vision**  
3 credit(s); prereq 5511 or instr consent;  
**Instructor:** Schrater, Paul Robert  
**Description:** Student may contact the instructor or department for information.

**CSCI 5708 Architecture and Implementation of Database Management Systems**  
3 credit(s); prereq 4707 or 5707 or instr consent;  
**Instructor:** Mokbel, Mohamed F  
**Description:** Student may contact the instructor or department for information.

**CSCI 5802 Software Engineering II**  
3 credit(s); prereq 5801 or instr consent;  
**Instructor:** Heimdahl, Mats Per  
**Description:** Software engineering is concerned with the cost effective development and evolution of software systems. In this course we will explore techniques that can be considered advanced?software engineering techniques?that is, techniques and topics we did not have the time to cover properly in an overview course such as Csci 3081 and 5801. The course will cover various topics in requirements engineering, formal modeling, model-based development, product family
CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 repeats allowed; prereq instr consent; may be repeated for cr;
Instructor: Swanson, Charles D
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 repeats allowed; prereq instr consent; may be repeated for cr;
Instructor: Carlis, John Vincent
Description: Student may contact the instructor or department for information.

CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 repeats allowed; prereq instr consent; may be repeated for cr;
Instructor: Dovolis, Chris John
Description: Student may contact the instructor or department for information.

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1-3 credit(s), max credits 9, 9 repeats allowed; prereq instr consent; may be repeated for cr;
Instructor: Collins, John
Description: Student may contact the instructor or department for information.
CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 repeats allowed; prereq instr consent; may be repeated for cr;
Instructor: Sturzlvant, Carl
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CSCI 5991 Independent Study
1-3 credit(s), max credits 9, 9 repeats allowed; prereq instr consent; may be repeated for cr;
Instructor: Kruang, Rui
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Instructor: Iriyan, Victoria
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1-3 credit(s), max credits 9, 9 repeats allowed; prereq instr consent; may be repeated for cr;
Instructor: Shragowitz, Eugene
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Instructor: Kim, Yongdae
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<td>CSCI 5994</td>
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<td>Myers, Chad Leighton</td>
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Instructor: Kumar,Vipin
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Instructor: VanWyk,eric
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Instructor: Terveen,Loren Gilbert
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CSCI 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 repeats allowed; prereq [CSci or CompE] major, instr consent; Instructor: Myers, Chad Leighton
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 repeats 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 repeats allowed; prereq [CSci or CompE] major, instr consent; Instructor: Boley, Daniel 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 repeats 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 repeats 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 repeats 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 repeats 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 repeats 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 repeats 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 repeats allowed; prerequisite [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 repeats allowed; prerequisite [CSci or CompE] major, instr consent ;
Instructor: Shragowitz, Eugene
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 repeats allowed; prerequisite [CSci or CompE] major, instr consent ;
Instructor: Du, David Hung-Chang
Description: Student may contact the instructor or department for information.

CSCI 5996 Curricular Practical Training
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Instructor: Heimdahl, Mats Per
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 repeats allowed; prerequisite [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 repeats allowed; prerequisite [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 repeats allowed; prerequisite [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 repeats allowed; prerequisite [CSci or CompE] major, instr consent ;
Instructor: K. Liu
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 repeats allowed; prerequisite [CSci or CompE] major, instr consent ;
Instructor: Khakshoor, 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 repeats allowed; prerequisite [CSci or CompE] major, instr consent ;
Instructor: Zhou, Hua
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 repeats allowed; prerequisite [CSci or CompE] major, instr consent ;
Instructor: Hsu, Wei Chung
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 repeats allowed; prerequisite [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 repeats allowed; prerequisite [CSci or CompE] major, instr consent ;
Instructor: VanWyk, Eric
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 repeats allowed; prerequisite [CSci or CompE] major, instr consent ;
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 repeats allowed; prerequisite [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 repeats allowed; prerequisite [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 repeats allowed; prerequisite [CSci or CompE] major, instr consent ;
Instructor: Schuler, William Edward
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 repeats allowed; prerequisite [CSci or CompE] major, instr consent ;
Instructor: Chandra, Abhishek
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 repeats allowed; prerequisite [CSci or CompE] major, instr consent ;
Instructor: Weissman, Jon B
Description: Student may contact the instructor or department for information.

This information is accurate as of 6/9/2008 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 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: Barry,Phillip
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: Riedl,John T
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 5996 Curricular Practical Training
S-N only, 1 credit(s), max credits 3, 3 repeats allowed; 
prereq [CSci or CompE] major, 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: 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: 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: 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: Zhang,Zhi-Li
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: Papiankolopoulos,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: 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: 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: Yew,Pen-Chung
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: Zhang,Zhi-Li
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: Kumar,Vipin
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: 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: Shragowitz,Eugene
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
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: Heimdahl,Mats Per
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: Shukla,Shashi
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: Gini,Maria 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: 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: 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: Interrante,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
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CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Hsu,Wei Chung
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
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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
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CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: VanWyk,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
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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
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CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
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CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
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S-N only, 3 credit(s); prereq CSci MS student, instr consent;
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CSCI 8760 Plan B Project
S-N only, 3 credit(s); prereq CSci MS student, instr consent;
Instructor: Zhai,Antonia Bingheng
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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: Shekhar,Shashi
Description: Student may contact the instructor or department
for information.
CSCI 8980 Special Advanced Topics in Computer Science
1-3 credit(s), max credits 9, 9 repeats allowed; prereq instr consent;
Instructor: Yew, Pen-Chung
Description: VLSI technology has allowed the number of transistors on a single chip to surpass 1 billion transistors in recent years. It has closely followed the famous Moore’s Law that predicts the doubling of the number of transistors on a chip every 18 months - for more than four decades!! Microprocessor performance has also closely followed that trend until the clock rate reached around 4 GHz a couple of years ago. To sustain such high clock rates, microprocessor architectures have undergone many dramatic changes. For example, recent NetBurst microarchitecture of Intel’s Pentium 4 microprocessor family requires 20 pipeline stages before we will know a branch prediction is correct or not, i.e. a branch mis-prediction penalty will be 20 cycles!! Such a design will demand very high branch prediction accuracy and many other microarchitecture support to sustain instruction pipeline throughput. The ever decreasing transistor sizes also introduce new challenges such as higher leakage current and more soft errors. They require computer architects to deal with power and reliability issues. In this course, we will look at some recent high performance microprocessor architectures, and the new challenging issues facing today’s and future generations of microprocessors. The subject areas will include: (1) Advanced Processor Microarchitectures; (2) Memory Systems Design; (3) Cache Memories; (4) Branch Prediction Schemes; (5) Speculative Execution; (6) Power-Aware Architectures; (7) Reliability and Security; (8) Simulation Techniques and Performance Evaluation; (9) Virtualization Support; (10) Program Debugging and Testing Support; (11) I/O Systems; (12) Special-Purpose Architectures; (13) Compilation Techniques Course Materials: The course will primarily be based on recently published research papers in major conferences, such as International Symposium on Computer Architecture (ISCA), International Symposium on Microarchitectures (MICRO), International Conferences on High Performance Computer Architecture (HPCA) and others. Prerequisites: Students must have taken computer architecture courses such as CS4203, CS 5204, EE 4363, EE4341, EE 5364, their equivalents, or the consent of the instructor.
Style: 40% Lecture, 20% Discussion, 40% Student Presentation.
Grading: 20% mid exam, 40% special projects, 30% in-class presentation, 10% class participation.
Instructor: Barry, Phillip  
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study  
1-3 credit(s), max credits 3, 1 repeat allowed; prereq instr consent;  
Instructor: Konstan, Joseph Andrew  
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study  
1-3 credit(s), max credits 3, 1 repeat 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 3, 1 repeat 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 3, 1 repeat 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 3, 1 repeat 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 3, 1 repeat 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 3, 1 repeat 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 3, 1 repeat 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 3, 1 repeat 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 3, 1 repeat allowed; prereq instr consent;  
Instructor: Shragowitz, Eugene  
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study  
1-3 credit(s), max credits 3, 1 repeat 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 3, 1 repeat allowed; prereq instr consent;  
Instructor: Heimdahl, Mats Per  
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CSCI 8991 Independent Study  
1-3 credit(s), max credits 3, 1 repeat allowed; prereq instr consent;  
Instructor: Shekhar, Shashi  
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CSCI 8991 Independent Study  
1-3 credit(s), max credits 3, 1 repeat 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 3, 1 repeat 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 3, 1 repeat 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 3, 1 repeat allowed; prereq instr consent;  
Instructor: Kuang, Rui  
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study  
1-3 credit(s), max credits 3, 1 repeat allowed; prereq instr consent;  
Instructor: Weissman, Jon B  
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study  
1-3 credit(s), max credits 3, 1 repeat 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 3, 1 repeat 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 3, 1 repeat allowed; prereq instr consent;
Instructor: Nadathur,Gopalan
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 3, 1 repeat 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 3, 1 repeat allowed; prereq instr consent;
Instructor: VanWyk, Eric
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 3, 1 repeat 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 3, 1 repeat allowed; prereq instr consent;
Instructor: Kim, Yongdae
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CSCI 8991 Independent Study
1-3 credit(s), max credits 3, 1 repeat allowed; prereq instr consent;
Instructor: Schuler, William Edward
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 3, 1 repeat 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 3, 1 repeat allowed; prereq instr consent;
Instructor: Zhai, Antonia Bingheng
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CSCI 8991 Independent Study
1-3 credit(s), max credits 3, 1 repeat allowed; prereq instr consent;
Instructor: Mokbel, Mohamed F
Description: Student may contact the instructor or department for information.

CSCI 8991 Independent Study
1-3 credit(s), max credits 3, 1 repeat 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 repeats allowed; prereq instr consent;
Instructor: Barry, Phillip
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 repeats 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 repeats allowed; prereq instr consent;
Instructor: Zhai, Antonia Bingheng
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 repeats 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 repeats allowed; prereq instr consent;
Instructor: Mokbel, Mohamed F
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CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 repeats 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 repeats 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 repeats allowed; prereq instr consent;
Instructor: Hopper, Nicholas J
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 repeats allowed; prereq instr consent;
Instructor: Karypis, George
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CSCI 8994 Directed Research in Computer Science
1-3 credit(s), max credits 9, 9 repeats allowed; prereq instr consent;
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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 repeats 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 repeats allowed; prereq instr consent;
Instructor: VanWyk, Eric
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 repeats 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 repeats 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 repeats 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 repeats 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 repeats 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 repeats allowed; prereq instr consent;
Instructor: Tripathi, Anand R
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 repeats allowed; prereq instr consent;
Instructor: Shragowitz, Eugene
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 repeats allowed; prereq instr consent;
Instructor: Du, David Hung-Chang
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 repeats 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 repeats 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 repeats 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 repeats allowed; prereq instr consent;
Instructor: Kumar, Vipin
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 repeats allowed; prereq instr consent;
Instructor: Srivastava, Jaideep
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 repeats 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 repeats allowed; prereq instr consent;
Instructor: Kuang, Rui
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 repeats allowed; prereq instr consent;
Instructor: Weissman, Jon B
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 repeats allowed; prereq instr consent;
Instructor: Hsu, Wei Chung
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 repeats 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 repeats allowed; prereq instr consent;
Instructor: Gini, Maria 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 repeats 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 repeats allowed; prereq instr consent;
Instructor: Meyer, Gary W
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 repeats allowed; prereq instr consent;
Instructor: VanWyk, Eric
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 repeats allowed; prereq instr consent;
Instructor: Myers, Chad Leighton
Description: Student may contact the instructor or department for information.

CMGT 2019 AutoCAD for Construction Managers
S-N only, 2 credit(s); prereq 30 sem cr;
Instructor: STAFF
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: STAFF
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: STAFF
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 3001 Conservation Biology Seminar
S-N only, 1 credit(s), max credits 6, 6 repeats allowed;
Instructor: Galatowitsch, Susan M
Description: Student may contact the instructor or department for information.

CBIO 8004 Economic and Social Aspects of Conservation Biology
3 credit(s); prereq CBio student or instr consent;
Instructor: Polasky, Alan Stephen
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 repeat allowed; prereq 8004, FW 8452, instr consent;
Instructor: Galatowitsch, Susan M
Description: Student may contact the instructor or department for information.
CMGT 4021 Construction Planning and Scheduling
3 credit(s); prereq 3001, [3011 or CE 4101], 45 sem cr;
Instructor: STAFF
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: STAFF
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: STAFF

CMGT 4041 Specifications and Technical Writing for Construction Professionals
3 credit(s); prereq 4011 or Concurrent registration is required (or allowed) in 4011;
Instructor: STAFF
Description: Develop and enhance appropriate oral and written communication necessary for use in the construction process from planning phase through contract closeout. Develop construction-specific practical applications to facilitate the process and avoid common pitfalls. (3 credits; Prequisites: CMgt 4011 or concurrent enrollment)

CMGT 4051 Construction Materials for Managers
3 credit(s); prereq 3001, [AEM 2011 or BP 3001 or BP 3101], 45 sem cr;
Instructor: STAFF
Description: Basic concepts of physical properties and behavior mechanisms for construction materials such as concrete, aggregate, steel, and wood. Standard specifications for material properties. Laboratory techniques for evaluation of each material.

CMGT 4111 Construction Productivity Management
2 credit(s); prereq 4021, 4022, CE 4101;
Instructor: STAFF
Description: The construction project superintendent, foreperson and the project manager of a construction project have the responsibility to manage and supervise a project in the most effective and efficient way possible. This course focuses on maximizing productivity through the supervision of labor, management of materials, equipment, job overhead and communications.

CMGT 4196 Construction Management Internship
S-N only, 1-4 credit(s), max credits 12, 3 repeats 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 work place, 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. 1 credit equivalent to 1 month of internship.

CMGT 4542 Building Energy Systems
A-F only, 3 credit(s); prereq [3001, [jr or sr]] or instr consent ;
Instructor: Manz,Timothy Oscar
Description: Conceptual understanding of functions of building mechanical systems and their integration with other building components through case studies. Residential and commercial HVAC systems, alternative energy sources, energy efficiency, structural implications of mechanical systems, indoor air quality, and environmental control strategies.

CMGT 4550 Topics in Construction Management
A-F only, 1-4 credit(s), max credits 12, 3 repeats allowed;
Instructor: Johnson,Ann M
Description: Student may contact the instructor or department for information.

Continuing Dental Education

CDED 6101 Postgraduate Contemporary Esthetic Dentistry I:
Level I--Lecture/Laboratory Series
S-N only, 5 credit(s);
Instructor: Olin,Paul S
Description: Student may contact the instructor or department for information.

CDED 6202 Postgraduate Contemporary Esthetic Dentistry:
Level II--Patient Series
S-N only, 5 credit(s); prereq 6101;
Instructor: Olin,Paul S
Description: Student may contact the instructor or department for information.

CDED 7302 Postgraduate Contemporary Esthetic Dentistry:
Level III--Orthodontic and Periodontal Esthetics
S-N only, 1-1.5 credit(s), max credits 1.5, 1 repeat allowed;
Instructor: Olin,Paul S
Description: Student may contact the instructor or department for information.

CDED 7307 Postgraduate Contemporary Esthetic Dentistry:
Level III--Technology in Restorative Dentistry
S-N only, 1 credit(s);
Instructor: Olin,Paul S
Description: Student may contact the instructor or department for information.

Control Science and Dynamical Systems
107 Akerman Hall

CSDY 8899 Seminar in Control Science and Dynamical Systems
S-N only, 1-3 credit(s), max credits 9, 9 repeats allowed;
prereq CSDy or IT grad;
Instructor: Balas,Gary John
Description: Student may contact the instructor or department for information.

Cultural Studies and Comparative Literature
235 Nicholson Hall
CSCL 1001 Introduction to Cultural Studies: Rhetoric, Power, Desire
4 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Other Humanities Core; Instructor: Opitz, Andrew Michael
Description: Student may contact the instructor or department for information.

CSCL 1101 Literature
4 credit(s); Meets CLE req of International Perspect Theme; meets CLE req of Literature Core; Instructor: STAFF
Description: This course is meant for people who love reading literature as well as for people who would love to learn how to love reading literature—and it should be lots of fun for both! We will go through the ages—from antiquity to the present day—in search of literature and of its main genres, figures, structures, functions, and themes. We will read of unrequited loves and incestuous desires, of fantastic journeys and monstrous encounters, of power struggles and murderous passions, of passionate friendships and uncanny betrayals, of sexual shame and joyous sex. We will read such things as epic poetry, lyric poetry, plays, novels, parables, and essays.

Style: 100% Lecture

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 Other Humanities Core;
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 Other Humanities Core; 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 to 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 introductory course in every sense, it's a good 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 International Perspect Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: CSCL 1401W Reading Literature: Theory and Practice 4 credits, meets Lib Ed req of International Perspect 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 Historical Perspective Core; 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 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 Other Humanities Core;
Instructor: Opitz, Andrew Michael
Description: This course is meant for people who love reading literature— and it should be lots of fun for both! We will go through the ages—from antiquity to the present day—in search of literature and of its main genres, figures, structures, functions, and themes. We will read of unrequited loves and incestuous desires, of fantastic journeys and monstrous encounters, of power struggles and murderous passions, of passionate friendships and uncanny betrayals, of sexual shame and joyous sex. We will read such things as epic poetry, lyric poetry, plays, novels, parables, and essays.

Style: 100% Lecture

CSCL 1921 Reading Culture: Theory and Practice
4 credit(s); Meets CLE req of Other Humanities Core; Instructor: Johnson, Kel Wayne
Description: Student may contact the instructor or department for information.

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 Other Humanities Core;
Instructor: Thomas, Jonathan
Description: Student may contact the instructor or department for information.

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 Other Humanities Core;
Instructor: Leppert, Alice J
Description: Student may contact the instructor or department for information.

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 Other Humanities Core;
Instructor: Davis, Stuart Hugh
Description: Student may contact the instructor or department for information.

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 Other Humanities Core;
Instructor: Davis, Stuart Hugh
Description: Student may contact the instructor or department for information.
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 Other Humanities Core;
Instructor: Weiss,Rachel Hannah
Description: Student may contact the instructor or department for information.

CSCL 3115 Cinema and Ideology
4 credit(s); Meets CLE req of Other Humanities Core;
Instructor: Ganguly,Keya
Description: Student may contact the instructor or department for information.

CSCL 3172 Music as Discourse
3 credit(s); Meets CLE req of Other Humanities Core;
Instructor: Thomas,Gary C.
Description: Music is very il for yung heds, for a certeine kind of nice, smoothing the sweetnes in aluring the auditorie to effemanance... Sweet musick at the first delighteth the eares, but afterward corrupteth and depraveth the minde... But being used in publique assemblies... as directories to fillthie daunging,... it estraungeth the mind, streth up fillthie lust, womanisheth the minde, ravisheth the hart, enfameth concupiscence, and bringeth in uncleannes... This diatribe against the evils of music was written in 1583. But the real or imagined power of music, its ideological uses, and its psychic and social meanings have been the subject of human reflection (and anxiety) from Plato to the present. This course examines the ways music can be considered a "discursive practice," i.e., how the shaping of sonorities participates in the formation of human consciousness, community, personal identity, and attitudes toward the body; how and for what purposes music is used or turned into a commodity; what/who distinguishes &quot;music&quot; from &quot;noise&quot;; and why some musics are policed and censored. Examples drawn from a wide variety of musical practices-film, symphony, blues, rock, opera, etc.-as well as artists, from Bach and Beethoven to the Beach Boys and the Butthole Surfers.
Style: 75% Lecture, 25% Discussion.

CSCL 3173W The Rhetoric of Everyday Life
3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: "The rhetoric of everyday life" examines how the sights, sounds, built environments, and various texts that surround us build our identities, our ways of making knowledge, and our views of the world. We'll read core works in rhetorical theory and cultural theory, as well as literary, musical, video and cinema texts. We'll gather materials from both high culture and everyday life to analyze and interpret. We'll engage history through archival case studies. It's an active-learning course that sets out to make sense of our lived experience and the history that surrounds it.
Style: 25% Lecture, 75% Discussion.
Grading: 25% mid exam, 50% reports/papers, 25% class participation.
Exam Format: Essay

CSCL 3175 Comedy: Text and Theory
3 credit(s); Meets CLE req of Other Humanities Core;
Instructor: Thomas,Gary C.
Description: In this course you'll study two kinds of things, comic texts and theories about comedy. Texts include anything from bumper stickers ("Rapture Now! Get the Assholes Out of Here") and lapel-pin flags to classic drama (a play or two by Aristophanes, Shakespeare, Moliere, Shaw, Beckett, e.g.), obscene and hostile jokes and satire to TV and Hollywood movies (like The Daily Show, Being John Malkovich, Monty Python and the Holy Grail, Borat, American Beauty, Brazil. For theory we'll consider a fairly canonical set of literary, philosophical, psychological, and sociological musings-Deep Thoughts on the nature, mechanics, and socio-political uses of comedy (among others, Bakhtin, Bergson, Freud, Frey, and a feminist and postmodern or two). The instructor feels constrained to warn those whose delicate sensibilities might be offended by the likes of George Carlin, Rabelais or Roseanne to look elsewhere. Despite the philosophical seriousness with which the Comic Spirit is pursued here, evaluations have been enthusiastic, if polarized: from utterly enraptured ("This course changed my life... professor is way cool") to deeply disaffected ("Course sucks, teacher's a jerk.")
Style: 80% Lecture, 20% Discussion.
Grading: 50% mid exam, 35% final exam, 15% quizzes.
Exam Format: multiple choice, essay

CSCL 3176 Oppositional Cinemas
4 credit(s); Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core;
Instructor: Opitz,Andrew Michael
Description: Student may contact the instructor or department for information.

CSCL 3177 On Television
4 credit(s);
Instructor: STAFF
Description: Television is a pervasive and hybrid cultural form, marking a convergence of technologies, institutions, audiences, and ideas. It has reorganized domestic and public space; challenged traditional concepts of "high" culture and "low" culture; nurtured ideas of global villages and simultaneity; ushered spectacle, advertising and standardized programs into our living rooms and supplied resonant metaphors for understanding the experience of contemporary life: boob tube, sound bite, talking head, tune-in/drop out, instant replay, prime time and pet-cam. In short, television has played a crucial role in transforming perception, inviting us to rethink fundamental concepts such as time, space, text, image, sound, and aesthetics. This course begins with the assumption that television is a complex phenomenon with neither a unitary significance nor a simple effect. We will explore key debates in the history, theory and criticism of television, concentrating on developing skills to facilitate critical and creative "readings" of television's past and present forms. This will include consideration of how television has borrowed from and influenced other media forms - especially film, music, and digital media.
Style: 80% Lecture, 20% Discussion.

CSCL 3178W Documentary Cinema: History and Politics
4 credit(s); Meets CLE req of Writing Intensive;
Instructor: Lekas,Michelle Yvonne
Description: This course will cover the history and development of documentary cinema, beginning with the question of how we define documentary as a genre and what, if anything, distinguishes non-fiction film from standard narrative cinema. Students will write one short paper, compose a documentary project, and take a multiple choice midterm and final. Texts are from authors including Deleuze, Affron, Nichols and Renov. Films include MAN WITH A MOVIE CAMERA, PARADISE LOST, DARE TO TELL THE TRUTH, SENIORITA EXTRAVIADA, and HOOP DREAMS.

CSCL 3311 Science and the Humanities
3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Other Humanities Core;
Instructor: Stout,Graeme Allen
Description: This course investigates how science and the humanities relate, or are related, to one another. Here we will
look at battles over truth, ethics, reality and the nature of "the human." We will question the role of the humanities as a critical reflection upon the sciences and how the humanities offer a means through which to understand the role and nature of science as a social practice. Beyond this critical view, we will also examine the image of science within popular culture.

CSCL 3413W Psychoanalysis and Literature Part II: Post Freudian Criticism
3 credit(s); Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: The impact of psychoanalytic discourses on literary studies as well as the opposite effect - the impact of literary theory on psychoanalysis. CSCL 3413 introduces psychoanalytic study of literature and other texts through the revisions of Freud. It also clarifies the methods of Comparative Literature: critical reading, analysis, and writing in response to what are sometimes thought of as 'difficult' texts. The general aim is to make these critical tools available for reading culture, especially literature and film.
Style: 60% Lecture, 40% Discussion.

CSCL 3456W Sexuality and Culture
3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Writing Intensive;
Instructor: Opitz, Andrew Michael
Description: Student may contact the instructor or department for information.

CSCL 3456W Sexuality and Culture
3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Writing Intensive;
Instructor: Peng, Yun
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 Historical Perspective Core; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: This course examines the social construction of the body, primarily in the West over the past two centuries. We ask: How is the human body made to mean in culture? What technologies of representation--painting, photography, graphic art, film, video, literature, music, etc.--are engaged in the production of that meaning? And: In what ways does the body then become a site of struggle for power and control? We'll consider how the sexed, gendered, racialized, socially classed body is dressed and undressed; how it is manipulated, colonized, fetishized, surveilled, policed, punished, and otherwise appropriated to ideological purpose; and how it becomes a site of desire, rebellion, conformity, etc. Readings range widely and typically include religious, philosophical, and literary texts, as well as critical theory.
Style: 75% Lecture, 25% Discussion.

CSCL 3461W Issues in Cultural Pluralism
3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme;
Instructor: Al-Zo'by, Mazher A
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 Cultural Diversity Theme; meets CLE req of Historical Perspective Core;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

CSCL 3557W Close Reading
3 credit(s); Meets CLE req of Literature Core; meets CLE req of Writing Intensive;
Instructor: hoagland, george
Description: Student may contact the instructor or department for information.

CSCL 3910 Topics in Cultural Studies and Comparative Literature: On Human Nature
3 credit(s), max credits 24, 8 repeats allowed;
Instructor: Sarles, Harvey B
Description: Student may contact the instructor or department for information.

CSCL 3910 Topics in Cultural Studies and Comparative Literature: The End of Feeling: Readings in the Contemporary Literature: Honors: Biologics of Culture
3 credit(s), max credits 12, 4 repeats allowed;
Instructor: Tageldin, Shaden M
Description: Student may contact the instructor or department for information.

CSCL 3979 Issues in Cultural Pluralism
3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme;
Instructor: Al-Zo'by, Mazher A
Description: Student may contact the instructor or department for information.

CSCL 3979 Issues in Cultural Pluralism
3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme;
Instructor: Dooghan, Daniel M
Description: Student may contact the instructor or department for information.
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 especially apparent 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. Student projects are encouraged to analyze other temporal, geographic, and rhetorical modes of space in order to understand limitations of present formulations, and explore ground for new potentialities. The course will be web enhanced with the URL to be announced.
Style: 40% Lecture, 60% Discussion.
Grading: 60% reports/papers, 10% class participation, 30% other evaluation. Exams - @ 15% each (undergrad students only); 30% leading class discussion (grad students only)
Exam Format: essay

CSCL 5411 Avant-Garde Cinema
A-F only, 4 credit(s); prereq 1921 or ARTH 1921W or equiv;
Instructor: Groening, Stephen F
Description: Student may contact the instructor or department for information.

CSCL 5555 Introduction to Semiotics
3 credit(s);
Instructor: Pepper, Thomas Adam
Description: This course is a rigorous introduction to the thought of the sign during this last century. The emphasis is on the word “thought”, that is to say, on the way in which semiotics, far from being an isolated discipline, is essentially related to all its neighbors, including: anthropology, feminism, linguistics, literature, Marxism, philosophy. Psychoanalysis. Readings include: Althusser, Austin, Barthes, Borgez, Deluze, Derrida, Eichenbaum, Foucault, Freud, Jakobson, Kristeva, Mitchell, and Rose, Lacan, Levinas, Levi-Strauss, Lotman, Peirce, Saussure, Shklovsky, Wimsatt and Beardsley, Winnicot.
Style: 70% Lecture, 30% Discussion.
Grading: 70% reports/papers, 10% in-class presentation, 20% class participation.
Exam Format: Paper

CSCL 5993 Directed Study
1-3 credit(s), max credits 9, 9 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: STAFF
Description: Directed study - arranged

Curriculum and Instruction
145 Peik Hall

CI 1911 Ethics, Wealth, and Education in a Democracy
A-F only, 3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme;
Instructor: Scarlett, Michael Hawkins
Description: This course tackles fundamental issues, broadly concerned, related to education and schooling. Its primary substantive goal is to examine the relationship between education and society. In doing this, we will look at the following set of broad questions: How does education shape individuals? How does it shape society? How does society, in turn, shape education? What is a good education? What is an education good for? The primary goal for this course is that the students and teacher shall gain a deeper understanding of these issues as they relate to American society. To that end, this course examines key texts in the field of educational studies, from a wide variety of traditions: philosophical, sociological, psychoanalytic, critical theoretical and historical. It will also examine some educational policy. As such, the course provides a grounding in the liberal arts tradition.
Style: 15% Lecture, 5% Film/Video, 50% Discussion, 25% Small Group Activities, 5% Student Presentation.
Grading: 50% reports/papers, 20% journal, 10% in-class presentation, 20% class participation.

CI 3401 Children’s Literature: Pre-K Through Grade 5
A-F only, 3 credit(s); prereq Jr or Sr or instr consent;
Instructor: Bredler, Beth
Description: Student may contact the instructor or department for information.

CI 3401 Children’s Literature: Pre-K Through Grade 5
A-F only, 3 credit(s); prereq Jr or Sr or instr consent;
Instructor: Gaida, Lee
Description: Student may contact the instructor or department for information.

CI 3401 Children’s Literature: Pre-K Through Grade 5
A-F only, 3 credit(s); prereq Jr or Sr or instr consent;
Instructor: Coffino, Kara Lee
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 repeat allowed;
Instructor: Clover, Faith M.
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 repeat allowed;
Instructor: Bequette, James W
Description: Student may contact the instructor or department for information.

CI 5050 Issues in Art Education
3 credit(s), max credits 12, 12 repeats allowed;
Instructor: Garber, Marilyn Ann
Description: Student may contact the instructor or department for information.

CI 5097 Student Teaching in Art Education
S-N only, 8 credit(s); prereq Licensure student in art ed;
Instructor: STAFF
Description: Observation of, participation in, and supervisory experiences with various types and levels of art classes.

CI 5111 Introduction to Elementary School Teaching
A-F only, 3 credit(s); prereq Foundations of ed major or elem ed initial lic;
Instructor: Johnson, Terry
Description: Student may contact the instructor or department for information.

CI 5111 Introduction to Elementary School Teaching
A-F only, 3 credit(s); prereq Foundations of ed major or elem ed initial lic;
Instructor: DeLapp, Peggy
Description: Student may contact the instructor or department for information.

CI 5145 Critical Pedagogy
A-F only, 3 credit(s);
Instructor: Lensmire, Timothy J.
Description: Dominant groups determine dominant meanings, but not without a struggle, and never once and for all. The educational and political project of critical pedagogy is exactly to
enable students to engage in this struggle over meaning in solidarity with the wretched of the earth; in the name of social justice, equality, and democratic community; and in preparation for and as part of transformative social action. This seminar explores critical pedagogy—not as a single or finished thing, but as a multivocal and unfinalizable word about how we might live and teach and learn together. We begin with two attempts to name critical pedagogy, by Freire and Kincheloe. Then, we extend and interrogate our understandings of critical pedagogy by reading the work of educators and scholars who draw on various critical perspectives?including indigenous, environmental, feminist, and postmodern?to imagine and practice a worthy pedagogy. Finally, we complicate and revise our developing conceptions of critical pedagogy, again, as we work with texts and films chosen by members of the class.

CI 5150 Curriculum Topics
1-6 credit(s), max credits 12, 12 repeats allowed;
Instructor: swiss,Theta
Description: Student may contact the instructor or department for information.

CI 5155 Contemporary Approaches to Curriculum: Instruction and Assessment
A-F only, 3 credit(s); prereq Grad students only;
Instructor: Cunningham, Maurella Louise
Description: Student may contact the instructor or department for information.

CI 5177 Practical Research
A-F only, 3 credit(s); prereq 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, 3-8 credit(s), max credits 16, 3 repeats allowed;
prereq Foundations of education and elem ed initial licensure only;
Instructor: Rourke, Joan Willenburg
Description: Student may contact the instructor or department for information.

CI 5181 Clinical Experience in Elementary School Teaching
S-N only, 3-8 credit(s), max credits 16, 3 repeats allowed;
prereq Foundations of education and elem ed initial licensure only;
Instructor: Harrington, Judith Marie
Description: Student may contact the instructor or department for information.

CI 5183 Applying Instructional Methods in the Elementary Classroom
S-N only, 1-2 credit(s), max credits 8, 4 repeats allowed;
prereq Foundations of ed major or elem ed initial licensure only;
Instructor: Mahowald, Megan Catherine
Description: Student may contact the instructor or department for information.

CI 5183 Applying Instructional Methods in the Elementary Classroom
S-N only, 1-2 credit(s), max credits 8, 4 repeats allowed;
prereq Foundations of ed major or elem ed initial licensure only;
Instructor: Hoyt Jr, Danny Dexter
Description: Student may contact the instructor or department for information.

CI 5183 Applying Instructional Methods in the Elementary Classroom
S-N only, 1-2 credit(s), max credits 8, 4 repeats allowed;
prereq Foundations of ed major or elem ed initial licensure only;
Instructor: Tyler, Tina Louise
Description: Student may contact the instructor or department for information.

CI 5183 Applying Instructional Methods in the Elementary Classroom
S-N only, 1-2 credit(s), max credits 8, 4 repeats allowed;
prereq Foundations of ed major or elem ed initial licensure only;
Instructor: Hokanson, Aaron Rudolf Miller
Description: Student may contact the instructor or department for information.

CI 5186 School-Related Projects
A-F only, 1-4 credit(s), max credits 4, 1 repeat allowed;
prereq 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 repeat allowed;
prereq 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 repeats allowed;
prereq Grad student only;
Instructor: STAFF
Description: Directs students to individual studies that focus on producing and evaluating curriculum materials; literature review of issues and problems; and assessing curriculum processes.

CI 5204 Kindergarten Methods
A-F only, 2 credit(s); prereq Foundations of Education/Elementary Education or M.Ed./ILP Elementary Education;
Instructor: Mogush, Patsy H
Description: Student may contact the instructor or department for information.

CI 5327 Designing Online Adventure Learning
A-F only, 3 credit(s);
Instructor: Doering, Aaron H
Description: Student may contact the instructor or department for information.

CI 5336 Planning for Multimedia Design and Development
3 credit(s);
Instructor: Miller, Charles Devaughn
Description: Student may contact the instructor or department for information.

CI 5361 Integrating the Internet into K-12 Schools for Learning, Instruction, and Professional Development
3 credit(s); prereq Experience with computers recommended;
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 experience with computers desirable.

CI 5401 Literature for the Elementary School
A-F only, 3 credit(s); prereq Children's lit course or instr consent;
Instructor: Rapport, Rebecca T
Description: Student may contact the instructor or department for information.

CI 5403 Creative Writing For and By Children
A-F only, 3 credit(s); prereq Children's lit course or instr consent;
Instructor: Galda, Lee
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 repeats allowed;
Instructor: Galda, Lee
Description: Student may contact the instructor or department for information.

CI 5412 Reading Difficulties: Instruction and Assessment
A-F only, 3 credit(s); prereq 5411 or 5451;
Instructor: Helman, Lon A
Description: Student may contact the instructor or department for information.

CI 5422 Teaching Writing in Schools
A-F only, 3 credit(s); prereq Initial licensure or MEd or grad student;
Instructor: Flynn, Jill Ewing
Description: Student may contact the instructor or department for information.

CI 5424 Reading, Language Arts, and Literature: Primary
A-F only, 3 credit(s); prereq Elem ed init lic;
Instructor: Chein, Michelle Anne Botkin
Description: Student may contact the instructor or department for information.

CI 5433 Instructional Leadership in Reading for the Middle and Secondary Grades
A-F only, 3 credit(s); prereq 5432;
Instructor: O'Brien, David
Description: Student may contact the instructor or department for information.

CI 5452 Reading in the Content Areas for Initial Licensure Candidates
A-F only, 1 credit(s); prereq Enrolled in Initial Licensure Program, concurrent enrollment in licensure area methods course(s), Internet access, basic understanding of [computer use, Web browsers, e-mail, word-processing software];
Instructor: O'Brien, David
Description: Student may contact the instructor or department for information.

CI 5452 Reading in the Content Areas for Initial Licensure Candidates
A-F only, 1 credit(s); prereq Enrolled in Initial Licensure Program, concurrent enrollment in licensure area methods course(s), Internet access, basic understanding of [computer use, Web browsers, e-mail, word-processing software];
Instructor: Biggs, Brad
Description: Student may contact the instructor or department for information.

CI 5461 Teaching Composition in the Secondary School
A-F only, 2 credit(s); prereq English initial licensure;
Instructor: Doerr, Candance Marie
Description: Student may contact the instructor or department for information.

CI 5462 Evaluating and Assessing Writing
A-F only, 3 credit(s); prereq 5461;
Instructor: Nichols-Besel, Kristen M
Description: Student may contact the instructor or department for information.

CI 5472 Teaching Film, Television, and Media Studies
A-F only, 3 credit(s);
Instructor: swiss, Thom
Description: Student may contact the instructor or department for information.

CI 5481 Developments in Teaching English and Speech
A-F only, 3 credit(s); prereq English initial licensure;
Instructor: Lewis, Cynthia
Description: Student may contact the instructor or department for information.

CI 5482 Reading, Language Arts, and Literature: Intermediate
A-F only, 3 credit(s); prereq Elem ed initial licensure only;
Instructor: Rapport, Rebecca T
Description: Student may contact the instructor or department for information.

CI 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.

CI 5501 Teaching Science and Health in the Elementary School
A-F only, 2 credit(s); prereq Elem ed initial licensure only;
Instructor: Johnson, Roger T
Description: Methods and materials for teaching science and health at the elementary school level.

CI 5501 Teaching Science and Health in the Elementary School
A-F only, 2 credit(s); prereq Elem ed initial licensure only;
Instructor: Dahal, Bhaskar
Description: Student may contact the instructor or department for information.

CI 5532 Teaching Secondary School Science
A-F only, 4 credit(s); prereq Admission to initial licensure program in science;
Instructor: Roehrig, Gillian Heather
Description: Student may contact the instructor or department for information.

CI 5535 Foundations of Science Education
A-F only, 3 credit(s); prereq M.Ed., grad student, or instr consent;
Instructor: Finley, Fred N
Description: Analysis of present science teaching practices in light of historical and philosophical foundations of science education.

CI 5538 Research-based Decision-making in Science Education
A-F only, 3 credit(s); prereq MEd or grad student or instr consent;
Instructor: Flynn, Leslie
Description: Student may contact the instructor or department for information.

CI 5597 Clinical Experience in Secondary School Science Teaching
S-N only, 4-8 credit(s), max credits 8, 1 repeat allowed;
prereq initial licensure or instr consent;
Description: Student may contact the instructor or department for information.
CI 5634 Content-Based Instruction in Second Language Settings
A-F only, 3 credit(s); prereq SLC initial licensure only;
Instructor: Ranney, Susan Elaine
Description: Student may contact the instructor or department for information.

CI 5635 Culture and Diversity in Second Language Classrooms
3 credit(s); prereq initial licensure program only;
Instructor: Tedick, Diane J
Description: Student may contact the instructor or department for information.

CI 5644 Working with Linguistically and Culturally Diverse Students in the Mainstream Classroom
1 credit(s);
Instructor: Watson, Jill Ann
Description: Student may contact the instructor or department for information.

CI 5644 Working with Linguistically and Culturally Diverse Students in the Mainstream Classroom
1 credit(s);
Instructor: Ranney, Susan Elaine
Description: Student may contact the instructor or department for information.

CI 5644 Working with Linguistically and Culturally Diverse Students in the Mainstream Classroom
1 credit(s);
Instructor: Stolpestad, Amy O'Connor
Description: Student may contact the instructor or department for information.

CI 5662 Issues in Second Language Curriculum Design
A-F only, 3 credit(s);
Instructor: Wesely, Pam
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 repeat 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 credit(s); 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 credit(s); 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 credit(s); 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 5699 Clinical Experiences in Second Languages
A-F only, 6-8 credit(s), max credits 16; prereq SLC initial licensure program only;
Instructor: Leazer, Jennifer Susan
Description: Student may contact the instructor or department for information.

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: Harrington, Judith Marie
Description: Student may contact the instructor or department for information.

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

CI 5744 Seminar: Reflecting on Professional Development in Social Studies Education
A-F only, 1 credit(s); prereq Secondary social studies initial licensure student;
Instructor: Mayo Jr, J B
Description: The student teaching seminar is designed to provide initial licensure social studies students an opportunity to reflect on the spring semester student teaching experience with their peers in a supportive learning environment. It is also expected that they will continue to develop and refine the numerous teaching strategies and methods they acquired during the fall student teaching experience, as well as begin to synthesize many of the skills these student teachers learned in previous courses.
Style: 10% Lecture, 40% Discussion, 5% Small Group Activities, 5% Student Presentation, 40% Guest Speakers.

CI 5747 Global and Environmental Education: Content and Practice
A-F only, 3 credit(s);
Instructor: Finley, Fred N
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: Jacobs, Benjamin M
Description: Student may contact the instructor or department for information.

CI 5762 Developing Civic Discourse in the Social Studies
A-F only, 3 credit(s); prereq MED or grad student;
Instructor: Mayo Jr, J B
Description: This course is designed for middle and high school teachers, and other educators, who wish to improve the quality of discussions in their courses. Through reading and reflecting on educational philosophy, research, and techniques, we will explore key questions about the purposes and methods of incorporating discussion as an instructional strategy into social studies courses. A combination of papers, original lesson plans, and participation in various discussion techniques in class will help participants accomplish their goals, which will promote excellent classroom practices.
Style: 10% Lecture, 60% Discussion, 20% Small Group Activities, 10% Student Presentation.

CI 5782 Clinical Experiences in Teaching Social Studies
S-N only, 1-8 credit(s), max credits 7, 1 repeat allowed; prereq MED/initial licensure student;
Instructor: Trout, Muffet G
Description: Student may contact the instructor or department for information.

This information is accurate as of 6/9/2008 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.
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
1-4 credit(s), max credits 20, 20 repeats allowed;
Instructor: Englund,Lynn A.
Description: LEARNING CIRCLES are an important pedagogical tool for professionals who work with diverse populations in classroom and community-based educational settings. Facilitators of the learning circle process reliably create small group learning environments in which participants feel safe enough to speak from the head and the heart and engage with each other through respectful listening and dialog. <br> The circle process respects individual's differences and helps participants to critically examine their own assumptions and beliefs. Facilitated learning circles can also help individuals and groups face adaptive challenges, problems or issues that can't be resolved solely with technical solutions or prescribed techniques or skills. The ability to meet these challenges requires more than having knowledge about the problem or issue; emotions that arise in facing the adaptive challenge and taking new action must also be addressed by the individual and the group. Students in this class will: <br> ? study important historical uses of the learning circle process at Highlander Folk School <br> ? examine a variety of theories relevant to understanding the approach <br> ? develop distinctions for and gain experience developing powerful learning circle questions <br> ? practice facilitating learning circles in class and for community members <br> ? reflect on their experience of learning circles and assess its use in their professional fields.
Style: 10% Film/Video, 50% Discussion, 20% Student Presentation, 20% Service Learning. Students will facilitate learning circles in class, or in the community as part of their service-learning and presentations.
Grading: 20% special projects, 60% reflection paper, 20% in-class presentation. Students are asked to share reflection papers with classmates during class sessions.

CI 5900 Special Topics in Family, Youth, and Community
1 credit(s), max credits 20, 20 repeats allowed;
Instructor: Bowman,Ted W
Description: Student may contact the instructor or department for information.

CI 5900 Special Topics in Family, Youth, and Community
1 credit(s), max credits 20, 20 repeats allowed;
Instructor: Brown,Michael Patrick
Description: Student may contact the instructor or department for information.

CI 5900 Special Topics in Family, Youth, and Community
3 credit(s), max credits 20, 20 repeats allowed;
Instructor: Shumer,Robert D
Description: Student may contact the instructor or department for information.

CI 5908 Family and Work Relationships
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: WHRE 5201;
Instructor: Magistad,Beth Maddock
Description: Interactions of work and family roles, responsibilities, and aspirations, with consideration given to resources, legal aspects, and gender.

CI 5926 Family and Consumer Sciences Student Teaching III
8 credit(s); prereq 5925;
Instructor: Lundell,Amy Jo
Description: Student may contact the instructor or department for information.

CI 5927 Family and Consumer Sciences Student Teaching IV
1 credit(s); prereq 5926; Credit will not be granted if credit has been received for: WHRE 5699;
Instructor: Lundell,Amy Jo
Description: Student may contact the instructor or department for information.

CI 5937 Parent-Child Interaction
A-F only, 3 credit(s); prereq credit will not be granted if credit received for: FE 5712;
Instructor: STAFF
Description: Analysis and critique of parent-child interaction theory and research; implications for parent-child relationships and parents' and children's development; application in professional work with families.

CI 5943 Parent Learning and Development: Implications for Parent Education
A-F only, 2 credit(s); prereq 5932;
Instructor: Brown,Michael Patrick
Description: Student may contact the instructor or department for information.

CI 5944 Parent Education Curriculum
A-F only, 2 credit(s); prereq 5943;
Instructor: Brown,Michael Patrick
Description: Student may contact the instructor or department for information.

CI 5945 Teaching and Learning in Parent Education
A-F only, 2 credit(s); prereq 5944;
Instructor: Cutting,Beth J
Description: Student may contact the instructor or department for information.

CI 5946 Assessment and Evaluation in Parent Education
A-F only, 2 credit(s); prereq 5945;
Instructor: Walker PhD,Susan K
Description: Student may contact the instructor or department for information.

CI 5948 Personal Learning: Pedagogy for Community and Classroom
A-F only, 3 credit(s); prereq credit will not be granted if credit received for: WCFE 5412;
Instructor: Kimball,Lisa
Description: Student may contact the instructor or department for information.

CI 5954 Experiential Learning: Pedagogy for Community and Classroom
A-F only, 3 credit(s); prereq credit will not be granted if credit received for: WCFE 5412;
Instructor: Kimball,Lisa
Description: Student may contact the instructor or department for information.

CI 5958 Community: Context for Youth Development Leadership
A-F only, 3 credit(s); prereq credit will not be granted if credit received for: WCFE 5414;
Instructor: Stein,Jerome A
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 repeats allowed;
prereq YDL student or instr consent credit will not be granted if credit received for: WCFE 5451;
Instructor: Kimball,Lisa
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 or instr consent;
Instructor: Kimball,Lisa
Description: Student may contact the instructor or department for information.

This information is accurate as of 6/9/2008 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.
CI 5974 The Democratic Learning Community
3 credit(s);
Instructor: Stein, Jerome A
Description: Student may contact the instructor or department for information.

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: Ngo, Bic
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: Helman, Lori A
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: Avery, Patricia Grant
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
1-6 credit(s), max credits 12, 12 repeats allowed; prereq [M.A. or Ed.D or Ph.D.] student or instr consent;
Instructor: swiss, Thom
Description: Student may contact the instructor or department for information.

CI 8154 Culturally Relevant Pedagogy
A-F only, 3 credit(s);
Instructor: Ngo, Bic
Description: Student may contact the instructor or department for information.

CI 8410 Special Topics in Reading Research and Instruction
1-6 credit(s), max credits 6, 6 repeats allowed; prereq instr consent;
Instructor: Dillon, Deborah R.
Description: Student may contact the instructor or department for information.

CI 8412 Research in Reading
3 credit(s), max credits 6; prereq instr consent;
Instructor: Helman, Lori A
Description: Student may contact the instructor or department for information.

CI 8470 Special Topics on Literacy
1-6 credit(s), max credits 6, 6 repeats allowed; prereq CI PhD student or instr consent;
Instructor: Lensmire, Timothy J.
Description: Student may contact the instructor or department for information.

CI 8904 Families, Youth, Communities, and Education: Historical and Contemporary Perspectives
A-F only, 3 credit(s); prereq MEd or MA or PhD student;
Instructor: Plihal, Jane
Description: Student may contact the instructor or department for information.

CI 8913 Interpretive Research
A-F only, 3 credit(s);
Instructor: Plihal, Jane
Description: Student may contact the instructor or department for information.

Dakota

DAKO 1122 Beginning Dakota II
5 credit(s); prereq 1121; Credit will not be granted if credit has been received for: DAKO 4122;
Instructor: McKay, Neil Troy
Description: Student may contact the instructor or department for information.

DAKO 3124 Intermediate Dakota II
5 credit(s); prereq 1121, 1122, 3123; Credit will not be granted if credit has been received for: DAKO 4124;
Instructor: McKay, Neil Troy
Description: Student may contact the instructor or department for information.

DAKO 5129 Advanced Dakota Language II
A-F only, 3 credit(s), max credits 12, 4 repeats allowed;
Instructor: McKay, Neil Troy
Description: Student may contact the instructor or department for information.

Dance

Barbara Barker Center for Dance

DNCE 1002 Modern Dance Technique 2
1 credit(s); prereq 1001, dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 1020 Modern Dance Technique 4
2 credit(s), max credits 4; prereq 1010, dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 1040 Modern Dance Partnering Technique
A-F only, 1 credit(s); prereq Dance major or instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 1102 Ballet Technique 2
1 credit(s); prereq 1101, dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 1120 Ballet Technique 4
2 credit(s), max credits 4; prereq 1110, dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 1202 Jazz Technique 2
1 credit(s); prereq 1201, dept consent;
Instructor: STAFF
Description: This is the second of an eight-semester sequence in jazz dance technique/style. Class work will continue to focus on fundamental jazz vocabulary and movement. Clear
artication of movement will continue to be emphasized, as well as the use of space, weight, dynamics, focus and musicality. The continued use of improvisation will be used to help build one's self-confidence in dance movement. Successful completion of previous level or departmental approval by audition required for registration.

Style: studio

DNCE 1220 Jazz Technique 4
1 credit(s); max credits 2; prereq 1210, dept consent; Instructor: STAFF
Description: This is the fourth 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. Students will work on perfecting inside and outside pirouettes in p.ile and releve. Dancers will increase their understanding of musicality, dynamics, style and improvisation, and explore a basic understanding of the history of jazz music styles. Successful completion of previous level or departmental approval by audition required for registration.

Style: Studio

DNCE 1302 Tap Technique 2
1 credit(s); prereq 1301 or instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 1313 African Based Movement
1 credit(s);
Instructor: STAFF
Description: This course will focus on varied movement of the African Diaspora, primarily West Africa, but not limited to the West African region or the continent of Africa. Class will include traditional movement, but will also focus on movement inspired by Africa, the Caribbean, and the African Diaspora at large. Coursework includes in-class movement participation, one movement midterm, and one two-page paper.

DNCE 1323 Swing Dance
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 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 1335 T'ai Chi Ch'uan
1 credit(s);
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 1401 Introduction to Dance
3 credit(s); Credit will not be granted if credit has been received for: CHIC 1401; Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core;
Instructor: STAFF
Description: This newly redesigned course is an introduction to global dance forms in society and art. It covers dance forms and significant issues in dance through lecture, discussion, viewing of live and taped performances and movement experiences. The course presents international perspectives on how dance functions in specific cultural contexts and how dance traditions influence each other as cultures come into close contact with one another. The course begins looking at a selection of dance forms from around the world and will end by exploring how these forms come into the United States contributing to creation of the fusion forms that make up American dance. A main objective is for students to develop the aesthetic, cultural and historical awareness needed to form and articulate, verbally and in writing, ideas and opinions about the art of dance. The course will examine a broad-range of dance traditions including: West African, Middle Eastern, South Indian, Japanese dance theater, European folk dance, ballet, Brazilian, North American Plains Indian, and American forms: tap, jazz, hip hop, modern dance, and musical theater. By the end of the course students will be able to recognize a variety of dance traditions and connect their historical development to the specific social, artistic and political currents of their culture.

DNCE 1500 Topics in Dance
1-3 credit(s), max credits 10, 10 repeats allowed;
Instructor: STAFF
Description: This course is the sixth level of an eight-semester sequence in classical ballet. This course continues to offer the intermediate ballet student principles of ballet technique. Classwork will involve strong emphasis on proper alignment of direction and balances. Students will work on perfecting inside and outside pirouettes in p.ile and releve. Dancers will increase their understanding of musicality, dynamics, style and improvisation, and explore a basic understanding of the history of jazz music styles. Successful completion of previous level or departmental approval by audition required for registration.

Style: Studio

DNCE 3020 Modern Dance Technique 6
2 credit(s), max credits 4; prereq 3010, dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 3210 Ballet Technique 6
2 credit(s), max credits 4; prereq 3110, dept consent; audit registration not permitted;
Instructor: STAFF
Description: This course is the sixth level of an eight-semester sequence in classical ballet. This course continues to offer 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 axial work. Turning and jumping will be re-introduced at the barre and subsequently transferred to the center. Centerwork will include as 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. Successful completion of previous level or departmental approval by audition required for registration.

Style: Studio

DNCE 3220 Jazz Technique 6
1 credit(s), max credits 2; prereq 3210, dept consent; audit registration not permitted;
Instructor: STAFF
Description: Student may contact the instructor or department for information.
DNCE 3302 Tap Technique 4
1 credit(s); prereq 3301 or instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 3304 Tap Technique 6
1 credit(s); prereq 3303 or instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

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 3402W Dance History 2
3 credit(s); prereq 3401, dance major; Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 3411 Dance and Popular Culture: Choreographing Race, Class, and Gender
3 credit(s); prereq [Jr or sr], instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 3433 Articulate Body
3 credit(s); prereq Dnce major, dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 3500 Topics in Dance
1-3 credit(s), max credits 10, 10 repeats 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 3601 Dance Composition 1
3 credit(s); prereq 1020, 1601, concurrent regis in a modern dance technique course, dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 3622 Dance Production II
A-F only, 2 credit(s); prereq 3621, dance major, dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 3700 Performance
1 credit(s), max credits 4; prereq Concurrent enrollment in a technique course, audition, dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 3901 Survival Strategies in Dance
A-F only, 3 credit(s); prereq Dance major, dept consent;
Instructor: STAFF
Description: In this course students will explore basic strategies fundamental to a dancer's survival. Essential knowledge about injury prevention and care; the development of healthy dietary and muscular/skeletal habits; and information on career tracks in dance are covered.

DNCE 4601 Dance Composition 3
3 credit(s); prereq 3602, concurrent regis in a modern dance technique course, dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 5020 Modern Dance Technique 8
2 credit(s), max credits 4; prereq 5010, dept consent; audit registration not permitted;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 5120 Ballet Technique 8
1 credit(s), max credits 2; prereq 5110, dept consent; audit registration not permitted;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 5220 Jazz Technique 8
1 credit(s), max credits 2; prereq 5210, dept consent; audit registration not permitted;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 5337 Body-Mind Centering 2
2 credit(s), max credits 4; prereq 3337 or equiv;
Instructor: STAFF
Description: The second level of Body-Mind Centering class concentrates on two or three of the body systems explored in level 1. This semester is devoted to the skeletal system and the organ system. It will emphasize the interaction of systems with each other, detailed hands-on touch and repatterning techniques and the integration of the bones and organs within the developmental movement framework. Texts include Wisdom of the Body Moving by Linda Hartley and the Anatomy Coloring Book, 3rd Edition. Students will be required to keep a weekly journal. There will be a quiz and take home exam.

DNCE 5493 Corporealities, Movement, and Social Justice: Staging "Equitable" Choreographies
A-F only, 3 credit(s); prereq Jr or sr; 4443 recommended;
Instructor: STAFF
Description: Student may contact the instructor or department for information.
DNCE 5500 Topics in Dance
1-3 credit(s), max credits 10, 10 repeats allowed;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

DNCE 5601 Dance Composition 5
1 credit(s); prereq 4601, 4602, dept 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 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

Dental Hygiene
9-406 Malcolm Moos Health Sciences Tower

DH 2212 Dental Hygienist-Patient Relationship
A-F only, 2 credit(s); prereq DH student;
Instructor: STAFF
Description: This course introduces the use of clinical research and evidence-based clinical decision making when communicating scientifically based clinical therapy and treatment modalities; and promotion of active participation by the patient in clinical decision making.

DH 2215 Oral Histology and Embryology
A-F only, 2 credit(s); prereq DH student;
Instructor: Gopalakrishnan, Rajaram
Description: Student may contact the instructor or department for information.

DH 2221 Periodontology
A-F only, 3 credit(s); prereq DH student;
Instructor: STAFF
Description: This course introduces periodontal diseases; etiology, assessment and treatment options. It includes clinical experience in debridement, root planing with ultrasonic and hand instruments.

DH 2221 Periodontology
A-F only, 3 credit(s); prereq DH student;
Instructor: Osborn, Joy B
Description: This course introduces periodontal diseases; etiology, assessment and treatment options. It includes clinical experience in debridement, root planing with ultrasonic and hand instruments.

DH 2222 Dental Hygiene Care Process Clinical Application II
A-F only, 3 credit(s); prereq DH student;
Instructor: STAFF
Description: This course introduces the School of Dentistry clinical systems. It covers various medical and emergency conditions affecting patient care and preventative strategies for dental diseases. It covers skill development in fluoride, sealants, and air polishing techniques. Includes evaluation of products used in the treatment of dental caries and periodontal diseases.

DH 2231 Cariology and Applied Nutrition in Dental Hygiene Care
A-F only, 3 credit(s); prereq DH student;
Instructor: Van Erem, Roberta K.
Description: Student may contact the instructor or department for information.

DH 3227 Oral and Maxillofacial Radiology Clinic II
A-F only, 0 credit(s); prereq DH student;
Instructor: STAFF
Description: This course introduces exposing patient radiographs, interpretation, panoramic and extraoral technique, and quality assurance procedures.

DH 4125W The Dental Hygiene Care Process Clinical Application V
A-F only, 1-6 credit(s), max credits 6, 1 repeat allowed; 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 4130 Management and Supervision of a Dental Practice
A-F only, 2 credit(s); prereq Current Dental Hygiene Program student;
Instructor: STAFF
Description: This course is a lecture series designed to establish skills in planning, organizing, leading, and controlling the clinical, business, and human aspects of a dental practice.

DH 4135W Research Methods in Dental Hygiene
A-F only, 3 credit(s); prereq DH student; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: In this course you will develop skills in the scientific method and analyzing research findings. There is emphasis on types of research, problem selection, hypothesis writing, research planning and design, data collection and measuring techniques, analysis and interpretation of data, and writing the research proposal.

DH 4136 Periodontology III Lecture
A-F only, 1 credit(s); prereq DH student;
Instructor: Bakdash, Bashar
Description: Student may contact the instructor or department for information.

DH 4139 Dental Public Health and Academic Service Learning II
A-F only, 2 credit(s); prereq DH student;
Instructor: Basile, Sarah Mae
Description: Student may contact the instructor or department for information.

DH 4211 Principles of Restorative Techniques II
S-N only, 3 credit(s);
Instructor: Dittmar, Susan Kyle
Description: Student may contact the instructor or department for information.

DH 4226 Dental Hygiene Care Process Clinical Application VI
A-F only, 1-6 credit(s), max credits 6, 1 repeat allowed; prereq DH student;
Instructor: Ahmann, Lisa Webb
Description: Student may contact the instructor or department for information.

DH 4233 Legislative, Social, Economic, and Practice Factors in Oral Health
A-F only, 2 credit(s); prereq DH student;
Instructor: Dittmar, Susan Kyle
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.
DENT 5121 Physical Evaluation I  
A-F only, 2.6 credit(s);  
Instructor: Hamamoto,Darryl T  
Description: Student may contact the instructor or department for information.

DENT 5201 Pain and Anxiety Control  
A-F only, 2 credit(s);  
Instructor: Sabino,Ma'Ann Chuiten  
Description: Student may contact the instructor or department for information.

DENT 5301 Introduction to Oral Biology  
S-N only, 2 credit(s);  
Instructor: Rudney,Joel David  
Description: Student may contact the instructor or department for information.

DENT 5302 Topics in Dental Biochemistry  
A-F only, 1.6 credit(s);  
Instructor: Rudney,Joel David  
Description: Student may contact the instructor or department for information.

DENT 5315 Oral Histology and Embryology and Medical Genetics  
A-F only, 3 credit(s);  
Instructor: Gopalakrishnan,Rajaram  
Description: Student may contact the instructor or department for information.

DENT 5351 Introduction to Dental Biomaterials  
A-F only, 1 credit(s);  
Instructor: Combe,Edward Charles  
Description: Student may contact the instructor or department for information.

DENT 5402 Prevention and Oral Health Promotion  
A-F only, 2 credit(s);  
Instructor: Born,David Omar  
Description: Student may contact the instructor or department for information.

DENT 5412 Professional Problem Solving  
A-F only, 1 credit(s);  
Instructor: Bebeau,Muriel J  
Description: Student may contact the instructor or department for information.

DENT 5441 Patient Management II  
S-N only, 4 credit(s);  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

DENT 5805 Operative Dentistry III  
A-F only, 3 credit(s); prerequisite Operative Dentistry I, II;  
Operative Dentistry I, II Lab;  
Instructor: Lee,Ignatius Kaiyan  
Description: Student may contact the instructor or department for information.

DENT 5903 Preclinical Prosthodontics Lecture II  
A-F only, 2 credit(s); prerequisite 5901, 5902;  
Instructor: Barrero,Carlos H  
Description: Student may contact the instructor or department for information.

DENT 5904 Preclinical Prosthodontics Technique Laboratory II  
A-F only, 2 credit(s); prerequisite 5901, 5902;  
Instructor: Barrero,Carlos H  
Description: Student may contact the instructor or department for information.

DENT 5909 Preclinical Prosthodontics Technique Lecture V  
A-F only, 3 credit(s); prerequisite 5901, 5902, 5903, 5904, 5905, 5906, 5907, 5908;  
Instructor: Cook,Gary Eugene  
Description: Student may contact the instructor or department for information.

DENT 5910 Preclinical Prosthodontics Technique Laboratory V  
A-F only, 3 credit(s); prerequisite 5901, 5902, 5903, 5904, 5905, 5906, 5907, 5908;  
Instructor: Cook,Gary Eugene  
Description: Student may contact the instructor or department for information.

DENT 6021 Senior Outreach Experience  
S-N only, 6.4 credit(s); prerequisite 4th yr student in Dentistry Program;  
Instructor: Schulz DDS,Paul D  
Description: This outreach course is designed to involve students in a variety of clinical settings throughout Minnesota, exposing them to patient populations of diverse age, ethnicity and need. Included in this course is a strong commitment to initiate student involvement in community health education promotion and service opportunities. Students will also provide dental care to underserved populations while being supervised by adjunct faculty from the University of Minnesota School of Dentistry  
Style: 5% Web-based, 95% addressing patient based dental education or care.  
Grading: 25% journal, 75% Patient communication and clinical care skills. Students must complete course evaluation to receive a grade.

DENT 6051 Comprehensive Care Clinic II  
A-F only, 2 credit(s); prerequisite 6050;  
Instructor: Gambucci,James Robert  
Description: Student may contact the instructor or department for information.

DENT 6051 Comprehensive Care Clinic II  
A-F only, 2 credit(s); prerequisite 6050;  
Instructor: Quick,Karin  
Description: Student may contact the instructor or department for information.

DENT 6122 Physical Evaluation II  
A-F only, 3 credit(s);  
Instructor: Rhodus,Nelson L  
Description: Student may contact the instructor or department for information.

DENT 6132 Oral Medicine/Diagnosis Clinic II  
A-F only, 1 credit(s);  
Instructor: Rhodus,Nelson L  
Description: Student may contact the instructor or department for information.

DENT 6203 Oral and Maxillofacial Surgery II  
A-F only, 1 credit(s); prerequisite Oral Surgery I;  
Instructor: Basi,David Lawrence  
Description: Student may contact the instructor or department for information.

DENT 6316 Oral and Maxillofacial Pathology  
A-F only, 4 credit(s);  
Instructor: Rohrer,Michael D  
Description: Student may contact the instructor or department for information.
DENT 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.

DENT 6414 Professional Problem Solving
S-N only, 0 credit(s);
Instructor: Quick,Karin
Description: Student may contact the instructor or department for information.

DENT 6421 The Management and Supervision of a Dental Practice
A-F only, 2 credit(s);
Instructor: Johnson,Kimberly S
Description: Student may contact the instructor or department for information.

DENT 6443 Treatment Planning Clinic II
A-F only, 1 credit(s); prereq Patient Management II Resource Workbook;
Instructor: Nadeau,Richard D
Description: Student may contact the instructor or department for information.

DENT 6445 Treatment Planning Clinic IV
A-F only, 1 credit(s); prereq Patient Management II Resource Workbook;
Instructor: Nadeau,Richard D
Description: Student may contact the instructor or department for information.

DENT 6451 Dental Auxiliary Utilization (DAU) Clinic
S-N only, 2 credit(s);
Instructor: Klein,David William
Description: Student may contact the instructor or department for information.

DENT 6454 Dental Auxiliary Utilization (DAU) Clinic
S-N only, 2 credit(s);
Instructor: Klein,David W
Description: Student may contact the instructor or department for information.

DENT 6465 Emergency Clinic
S-N only, 2 credit(s);
Instructor: Miller,Robert Rodange
Description: Student may contact the instructor or department for information.

DENT 6510 Pediatric Dentistry Clinic
A-F only, 5 credit(s); prereq Credit will not be granted if credit received for 6511, 6512, 6513, 6514, 6515;
Instructor: Yesil,Jasmine
Description: Student may contact the instructor or department for information.

DENT 6515 Pediatric Dentistry Clinic
A-F only, 5 credit(s); prereq credit will not be granted if credit received for: 6511, 6512, 6513, 6514, 6515;
Instructor: Yesil,Jasmine
Description: Student may contact the instructor or department for information.

DENT 6522 Orthodontics II
A-F only, 2 credit(s);
Instructor: Beyer,John Paul
Description: Student may contact the instructor or department for information.

DENT 6524 Orthodontic Clinic Rotation
S-N only, 1 credit(s);
Instructor: Beyer,John Paul
Description: Student may contact the instructor or department for information.

DENT 6613 Periodontology III Lecture
A-F only, 1 credit(s); Credit will not be granted if credit has been received for: DH 4231;
Instructor: Bakdash,Bashar
Description: Student may contact the instructor or department for information.

DENT 6622 Periodontology Clinic
A-F only, 2 credit(s);
Instructor: Carlson,Jeffrey F
Description: Student may contact the instructor or department for information.

DENT 6625 Periodontology Clinic
A-F only, 2 credit(s);
Instructor: Carlson,Jeffrey F
Description: Student may contact the instructor or department for information.

DENT 6712 Endodontic Clinic
A-F only, 2 credit(s);
Instructor: Bowies,Walter Ray
Description: Student may contact the instructor or department for information.

DENT 6714 Endodontic Topics for the General Dentist
S-N only, 0 credit(s); prereq Completion of 3rd yr of dental school;
Instructor: Schwensohn,Jane Marie
Description: Student may contact the instructor or department for information.

DENT 6812 Operative Dentistry Clinic II
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.

DENT 6815 Operative Dentistry Clinic V
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.

DENT 6840 Introduction to CAD/CAM CEREC Restorations
S-N only, 2 credit(s);
Instructor: Zidan,Omar Abdel-Al
Description: Student may contact the instructor or department for information.

DENT 6911 Prosthodontics I
A-F only, 2 credit(s); prereq Fundamentals of Prosthodontics Shape and Color Esthetics of Anterior Prosthodontics;
Instructor: Larson,William Richard
Description: Student may contact the instructor or department for information.

DENT 6913 Fixed Prosthodontics Clinic I
A-F only, 5 credit(s); prereq 4810 Fixed Prosthodontics Clinic I;
Instructor: Cook,Gary Eugene
Description: Student may contact the instructor or department for information.

DENT 6915 Fixed Prosthodontics Clinic IV
A-F only, 5 credit(s); prereq 4815;
Instructor: Cook,Gary Eugene
Description: Student may contact the instructor or department for information.

This information is accurate as of 6/9/2008 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.
DENT 7992 Hospital Emergency on Call
S-N only, 1-4 credit(s), max credits 8; 
Instructor: Anderson, Gary Carl
Description: Student may contact the instructor or department for information.

DENT 8031 Topics and Problems in Dental Education
1-3 credit(s), max credits 3, 1 repeat allowed; 
Instructor: Born, David Omar
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: Fricton, James Ryan
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: Mulet Pradera DDS, MS, Mariona
Description: Student may contact the instructor or department for information.

DENT 8123 Advanced Topics in Orofacial Pain
A-F only, 3 credit(s); prereq Grad student in dentistry or other health sciences grad student or instr consent; 
Instructor: Hathaway, Kate M
Description: Student may contact the instructor or department for information.

Design

A-F only, 3 credit(s), max credits 3, 1 repeat allowed; prereq Fr; 
Instructor: Solomonson, Katherine Mary
Description: Student may contact the instructor or department for information.

DES 1910W Freshman Seminar
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed; prereq Fr; Meets CLE req of Writing Intensive; 
Instructor: Nunnally, Patrick
Description: Planning and Design for the World's Most Special Places. Students will build basic college-level skills in research, analysis, writing, and presentation of their ideas, while learning the particular sets of skills and issues that are part of education in landscape architecture. Students in this class will gain basic familiarity with the kinds of issues the Center for World Heritage Studies addresses.
Grading: 15% reports/papers, 15% quizzes, 70% written homework.

Design Institute
101 Rapson Hall

DESI 3010 Travels in Typography: Design Institute Seminar
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
DES 3304 Introduction to Furniture Design: Design Institute Case Study Seminar
A-F only, 3 credit(s); prereq Design minor or instr consent; 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 3050 Streetlife Urban Design Seminar
A-F only, 3 credit(s); Instructor: Schulte, Marcy Lynn
Description: In this seminar, we will focus on the street, not just defined as the gap between buildings or between destinations but as a place in itself. With street and streetlife as the subject of our inquiry, we will consider case studies and envision possible transformations through discourse, dissection and analysis. In this course, students will examine and make projects that reconfigure city spaces based on their assessment of how our daily lives intersect with the street. Our investigations will be guided by readings in urban studies, geography, design, economics and art history. Guest lecturers may include landscape architects, urban designers, public artists and engineers.

DES 3061 (Un)wrapping It Up: New Materials for Design, Design for New Materials
A-F only, 3 credit(s); Instructor: STAFF
Description: Are you interested in Architecture and product design? Do you feel restricted by wood, stone and plastic? Learn how new materials influence your work! In this seminar, we will explore the nature of new high-tech materials that have been revolutionizing many design arenas, from architecture to clothing, from products to landscapes and in between. A highly popular recent Cooper-Hewitt National Design Museum exhibition, "Extreme Textiles: Designing for High Performance," brought international attention to this exciting field of material development, as examples of specialty textiles carried scientific instruments to the surface of Mars, helped bring first responders safely back from volatile environments, and one billion people watched soccer teams compete for the World Cup in fabric-clad stadiums. In this course, students will learn about new materials - such as high-tech fabrics, foils, electrotextiles, and so-called "intelligent textiles" that respond to environmental stimuli - through hands-on materials research and testing of prototypes. Cross-disciplinary student teams will explore "appropriate use" modeling and applications, testing their design ideas through several quick one-week projects, leading to a larger, more integrated project at term's end. Seminar instructor: Bruce Wright, Editor, Fabric Architecture magazine, <http://www.bnwright@faii.com>/http://www.bnwright@faii.com>.

DES 4001 Design Minor Seminar
A-F only, 3 credit(s); Instructor: Hemmis, Patricia Ann
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 metaphorical 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 4120 Topics in Interdisciplinary Design
A-F only, 3 credit(s), max credits 15, 5 repeats allowed; Instructor: Harder, Kathleen
Description: Are you interested in designing successful products or systems? In this course you will be introduced to a design philosophy centered on designing for human capabilities. The course will help you better understand the complexities underlying design for human use. As a result, you will be better able to design a product or system that works well for the people who use it. You will learn a process, rather than memorize facts. You will be exposed to examples of complex systems (with design weaknesses and strengths) drawn from areas such as health care, transportation, architecture. Progressively more complicated examples will be used to illustrate the interaction between design and human information processing capabilities and constraints. You will discover the issues inherent in a number of design problems and you will be encouraged to generate design solutions that are likely to facilitate better user performance. You will learn to think about how to design from the perspective of various users within a single system and to anticipate ripple effects within that system. The interactive learning exercises will convey the underlying core principles of designing for users. To paraphrase Mick Jagger, users can't always get what they want, but if you take this course, you just might find, you can help them get what they need. Intended for students from all disciplines, especially from Design, IT, and CSON.

DHA 1101W Introduction to Design Thinking
A-F only, 4 credit(s); Credit will not be granted if credit has been received for: LA 1101W; Meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; Instructor: Yust, Becky L
Description: This course is an introduction to the theories and processes that underpin design thinking and practice. Students will explore the interactions between humans and their natural, social, and designed environments where purposeful design helps determine the quality of those interactions, the practice of the design professions, and the power of design in culture. 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. 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. Text: Lawson, B. (1997) "How Designers Think", Oxford, England: Architectural Press. Style: 70% Lecture, 25% Discussion. Videos, and one on-campus field trip Grading: 68% reports/papers, 20% problem solving, 13% other evaluation. Design journal

DHA 1201 Clothing Design, Merchandising, and the Consumer
A-F only, 3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; 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:** 25% final exam, 25% quizzes, 10% class participation, 40% other evaluation. 3 exams given during the semester.

**Exam Format:** Multiple choice, true/false, fill in the blank

**DHA 1311 Foundations: Drawing and Design in Two and Three Dimensions**

**A-F only, 4 credit(s); prereq DHA major or pre-major; 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. visual assignments

**Exam Format:** Final presentation

**DHA 1312 Foundations: Color and Design in Two and Three Dimensions**

**A-F only, 4 credit(s); prereq DHA major or pre-major; 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

**DHA 1315 Foundations: The Graphic Studio**

**A-F only, 4 credit(s); prereq [DHA major or pre-major] or instr consent; 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

**DHA 1602 Interior Design Studio II**

**A-F only, 4 credit(s); prereq [DHA pre-major], 1601 with grade of at least C-; Instructor: Zollinger,Stephanie Watson**

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

**DHA 2196 Work Experience in DHA**

**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.

**DHA 2196 Work Experience in DHA**

**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.

**DHA 2196 Work Experience in DHA**

**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.

**DHA 2196 Work Experience in DHA**

**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: Gahring,Sheri Ann**

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

**DHA 2196 Work Experience in DHA**

**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.

**DHA 2196 Work Experience in DHA**

**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.

**DHA 2196 Work Experience in DHA**

**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.

**DHA 2196 Work Experience in DHA**

**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.

**DHA 2196 Work Experience in DHA**

**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.

**DHA 2196 Work Experience in DHA**

**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.

**DHA 2196 Work Experience in DHA**

**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.

**DHA 2196 Work Experience in DHA**

**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.

This information is accurate as of 6/9/2008 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.
DHA 2196 Work Experience in DHA
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.

DHA 2221 Clothing Design Studio I
A-F only, 4 credit(s); prereq 1201, 1221, clothing design premajor;
Instructor: STAFF
Description: Introduction to theories and methods used to solve problems in designing clothing for a variety of user groups. Developing an understanding of the relationship of the 2-dimensional pattern shape to the 3-dimensional body. Introduction to basic flat pattern, draping and fitting principles. The objectives of the course are: To understand the basic relationship of the 2-dimensional plane to the 3-dimensional body in developing pattern shapes; To understand and utilize flat pattern manipulation to vary pattern style while maintaining size in the design of clothing; To examine, evaluate, and utilize pattern development techniques as appropriate for selected clothing designs; To learn the basic process of apparel design ideation through the use of a variety of illustration techniques; To learn and implement the basic process of apparel pre-production form design concept through finished sample. This class is designed for pre-clothing design majors who have completed the necessary prerequisites: DHA 1201, 1311, 1221, 1312. The class is designed for studio learning opportunities with supporting lecture and demonstrations. Project work requires an average of 15 hours outside of class.
Style: 25% Lecture. Studio
Grading: 50% special projects, 50% problem solving.

DHA 2311 Drawing and Illustration
Description: Student may contact the instructor or department for information.

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A-F only, 3 credit(s); prereq 1311, 1312, [DHA major or premajor];  
Instructor: Boyd-Brent, James W  
Description: Student may contact the instructor or department for information.

DHA 2334 Computer Applications I: Digital Composition for Design  
A-F only, 3 credit(s); prereq DHA major or pre-major, 1311, 1312, 1315  
Instructor: Hokanson, Brad  
Description: This is an advanced computer design class that focuses on the integration of design knowledge with Macintosh computer applications. Students obtain experience using software to design illustrations and page layouts with the support of their understanding on design principles and strategies. Three programs are focused on: Adobe Illustrator, Adobe Photoshop, and InDesign. Experiences on using these software are required. Additionally, Macromedia Flash will also be taught. Emphasis of this class is placed 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: 10% in-class presentation, 10% class participation, 80% other evaluation. Design projects

DHA 2345 Typographic Design  
A-F only, 3 credit(s); prereq DHA major, pass portfolio review;  
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 through 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

DHA 2351 Graphic Design I: Text and Image  
A-F only, 3 credit(s); prereq 2345, DHA major, pass portfolio review;  
Instructor: McCarthy, Steven J  
Description: Student may contact the instructor or department for information.

DHA 2365W Design and Factors of Human Perception  
A-F only, 4 credit(s); prereq DHA major, pass portfolio review; Meets CLE req of Writing Intensive;  
Instructor: Martinson, Barbara Elizabeth  
Description: Student may contact the instructor or department for information.

DHA 2402 Residential Technology  
A-F only, 3 credit(s);  
Instructor: Yust, Becky L  
Description: Student may contact the instructor or department for information.

DHA 2463 Housing and Community Development  
A-F only, 3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme;  
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 surveyed. 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

DHA 2604 Interior Design Studio IV  
A-F only, 4 credit(s); prereq [2603, 2612, 2621] with grade of at least C-, DHA major;  
Instructor: Saari, Cheri Marie  
Description: Student may contact the instructor or department for information.

DHA 2613 Lighting Design and Life Safety Issues  
A-F only, 4 credit(s); prereq [DHA major, pass portfolio review] or instr consent;  
Instructor: Martin PhD, Caren Samter  
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International  
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed; prereq instr consent;  
Instructor: LaBat, Karen Louise  
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International  
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed; prereq instr consent;  
Instructor: Ziebarth, Ann  
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International  
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed; prereq instr consent;  
Instructor: Hokanson, Brad  
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International  
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed; prereq instr consent;  
Instructor: Martin PhD, Caren Samter  
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International  
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed; prereq instr consent;  
Instructor: Yust, Becky L  
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International  
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed; prereq instr consent;  
Instructor: Hokanson, Brad  
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International  
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed; prereq instr consent;  
Instructor: Angell, William J  
Description: Student may contact the instructor or department for information.

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DHA 3196 Field Study: National or International
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed;
prereq instr consent ;
Instructor: Bye, Elizabeth Kersch
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed;
prereq instr consent ;
Instructor: Waldron, Carol C
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed;
prereq instr consent ;
Instructor: Chu, Sauman
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed;
prereq instr consent ;
Instructor: Boyd-Brent, James W
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed;
prereq instr consent ;
Instructor: Hadjyanni, Tasoulla
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed;
prereq instr consent ;
Instructor: Williams, Gloria M
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed;
prereq instr consent ;
Instructor: Guerin, Denise A
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed;
prereq instr consent ;
Instructor: Johnson PhD, Kim KP
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed;
prereq instr consent ;
Instructor: DeLong, Marilyn R
Description: Student may contact the instructor or department for information.

DHA 3196 Field Study: National or International
A-F only, 1-10 credit(s), max credits 10, 3 repeats allowed;
prereq instr consent ;
Instructor: Zollinger, Stephanie Watson
Description: Student may contact the instructor or department for information.

DHA 3201 Strategic Career Planning
A-F only, 1 credit(s); prereq [Jr or sr or at least 60 cr], retail merchandising major;
Instructor: Jasper, Daniel
Description: 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.

DHA 3224 Clothing Design Studio IV
A-F only, 4 credit(s); prereq [2213, 3223] with grade of at least C-, DHA major;
Instructor: LaBat, Karen Louise
Description: Use of the design process in designing clothing for special needs. Conduct and apply research in design of specialized clothing for use in situations requiring thermal protection, impact protection, accommodation for mobility, and to facilitate and/or increase body function. Course projects are often conducted in collaboration with an industry partner. Text is "Clothing: The Portable Environment", by Watkins. Prereq is Clothing Studio III
Schedule.

Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the online Class Schedule.

DHA 3255 Clothing Design Research
A-F only, 1 credit(s); prerequisite concurrent registration is required (or allowed) in 3224;
Instructor: Bye, Elizabeth
Description: Student may contact the instructor or department for information.

DHA 3243 Visual Merchandising
A-F only, 3 credit(s); prerequisite 1101, 1201, [DHA major or minor or dept consent];
Instructor: Johnson, PhD. Kim
Description: Student may contact the instructor or department for information.

DHA 3245 Multichannel Retailing
A-F only, 3 credit(s); prerequisite 1201;
Instructor: Johnson, PhD. Kim
Description: Student may contact the instructor or department for information.

DHA 3312 Color and Form in Surface Design
A-F only, 3 credit(s); prerequisite 1311, 1312, [DHA major or pre-major];
Instructor: Carlson, Anna
Description: This course will explore use of color in surface design with particular emphasis on hands on screenprinting (screenprinting for designers) on paper. There will also be a monoprinting on paper and fabric, and a surface design on fabric component (dyeing, screenprinting).
Style: 5% Lecture, 20% Discussion, 60% Laboratory, 5% Student Presentation, 5% Demonstration, 5% Field Trips. visual assignments both and in- and out of class work
Grading: 5% mid exam, 10% class participation, 85% other evaluation. visual assignments and in-class work

DHA 3352 Graphic Design II: Identity and Symbols
A-F only, 3 credit(s); prerequisite 2351, DHA major;
Instructor: Staff
Description: This course will build on previously learned graphic design principles including a continued investigation of typography and its application. Students will explore the representation of abstract ideas in the form of symbols for the purpose of building identity. The class will focus on the development of visual identity through a systems approach to design with application to various printed collateral. This course will prepare students to design a symbol, a logotype, stationary system and collateral products, keeping the identity consistent and intact throughout the process. Students will apply gestalt design principles, figure-ground relationships, and contrast within the structure of the grid to aid organization from piece to piece and within the whole.
Style: 10% Lecture, 10% Discussion, studio time
Grading: 60% special projects, 10% class participation, 30% problem solving.

DHA 3353 Graphic Design III: Packaging and Display
A-F only, 3 credit(s); prerequisite 3352 or concurrent registration is required (or allowed) in 3352, DHA major;
Instructor: McCarthy, Steven J
Description: This section of Packaging Design will focus on interdisciplinary projects. Graphic Design students will collaborate with students in the New Product Design and Business Development program (a collaborative venture between the Carlson School of Management, the Department of Mechanical Engineering, the Department of Biomedical Engineering and sponsoring companies), and within DHA by working with Apparel Design and Retail Merchandising students. The goal is to challenge the students to work and learn together by designing actual packaging designs applied to real products and retail environments.
Style: 10% Lecture, 10% Discussion, 75% Laboratory. critique
Grading: 15% final exam, 30% reports/papers, 5% in-class presentation, 40% laboratory evaluation, 10% problem solving.
Exam Format: critique, analysis, documentation, outside assessment

DHA 3353 Graphic Design III: Packaging and Display
A-F only, 3 credit(s); prerequisite 3352 or concurrent registration is required (or allowed) in 3352, DHA major;
Instructor: Gardner, Carina
Description: Student may contact the instructor or department for information.

DHA 3482 Our Home, Our Environment
A-F only, 3 credit(s); prerequisite 2402 or instr consent; Credit will not be granted if credit has been received for ESPM 3601;
Instructor: Yust, Becky L
Description: Student may contact the instructor or department for information.

DHA 3606 Interior Design Studio VI
A-F only, 4 credit(s); prerequisite 3605 with grade of at least C-, DHA major;
Instructor: Martin, PhD. Caren
Description: Student may contact the instructor or department for information.

DHA 4121 History of Costume
A-F only, 4 credit(s); prerequisite Jr or sr or grad student;
Instructor: DeLong, Marilyn R
Description: Survey of clothing and appearances in Western culture from pre-history to present day. Examination of how lines, shapes, color, texture, mass, and body proportions and movements, are assembled within a social context including time, culture, and event. Research approaches and methods in the study and interpretation of dress are included. Teaching method includes lecture, discussion and laboratory with sample slides, videos, use of actual artifacts in the historic costume collection of the Goldstein. Target audience is upper level undergraduate students.
Style: 30% Lecture, 30% Discussion, 30% Laboratory
Grading: 15% mid exam, 15% final exam, 10% reports/papers, 30% special projects, 10% in-class presentation, 10% class participation, 10% laboratory evaluation.
Exam Format: Multiple choice and some essay.

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

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

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

DHA 4160H Honors Capstone Project
A-F only, 2 credit(s), max credits 4; prerequisite DHA honors;
Instructor: Grahing, Sherri Ann
Description: Student may contact the instructor or department for information.

DHA 4160H Honors Capstone Project
A-F only, 2 credit(s), max credits 4; prerequisite DHA honors;
Instructor: Yust, Becky L
Description: Student may contact the instructor or department for information.
DHA 4160H Honors Capstone Project
A-F only, 2 credit(s), max credits 4; prereq DHA honors;
Instructor: McCarthy, Steven J
Description: Student may contact the instructor or department for information.

DHA 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.

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

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

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

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

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

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

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

DHA 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.

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

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

DHA 4193 Directed Study in Design, Housing, and Apparel
A-F only, 1-4 credit(s), max credits 4; prereq Undergrad, instr consent;
Instructor: Hoskins, Brad
Description: Student may contact the instructor or department for information.

DHA 4193 Directed Study in Design, Housing, and Apparel
A-F only, 1-4 credit(s), max credits 4; prereq Undergrad, instr consent;
Instructor: Jasper, Daniel
Description: Student may contact the instructor or department for information.

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

DHA 4193 Directed Study in Design, Housing, and Apparel
A-F only, 1-4 credit(s), max credits 4; prereq Undergrad, instr consent;
Instructor: Waldron, Carol C
Description: Student may contact the instructor or department for information.

DHA 4193 Directed Study in Design, Housing, and Apparel
A-F only, 1-4 credit(s), max credits 4; prereq Undergrad, instr consent;
Instructor: Gahring, Sherri Ann
Description: Student may contact the instructor or department for information.

DHA 4193 Directed Study in Design, Housing, and Apparel
A-F only, 1-4 credit(s), max credits 4; prereq Undergrad, instr consent;
Instructor: Hokanson, Brad
Description: Student may contact the instructor or department for information.

DHA 4193 Directed Study in Design, Housing, and Apparel
A-F only, 1-4 credit(s), max credits 4; prereq Undergrad, instr consent;
Instructor: Gahring, Sherri Ann
Description: Student may contact the instructor or department for information.
Instructor: Angell, William J  
Description: Student may contact the instructor or department for information.

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

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

DHA 4193 Directed Study in Design, Housing, and Apparel  
A-F only, 1-4 credit(s), max credits 4; prerequisite Undergrad, instructor consent;  
Instructor: Chu, Sauman  
Description: Student may contact the instructor or department for information.

DHA 4193 Directed Study in Design, Housing, and Apparel  
A-F only, 1-4 credit(s), max credits 4; prerequisite Undergrad, instructor consent;  
Instructor: Boyd-Brent, James W  
Description: Student may contact the instructor or department for information.

DHA 4193 Directed Study in Design, Housing, and Apparel  
A-F only, 1-4 credit(s), max credits 4; prerequisite Undergrad, instructor consent;  
Instructor: Hadiyanni, Tasoulla  
Description: Student may contact the instructor or department for information.

DHA 4193 Directed Study in Design, Housing, and Apparel  
A-F only, 1-4 credit(s), max credits 4; prerequisite Undergrad, instructor consent;  
Instructor: Martin, PhD, Caren Samter  
Description: Student may contact the instructor or department for information.

DHA 4193 Directed Study in Design, Housing, and Apparel  
A-F only, 1-4 credit(s), max credits 4; prerequisite Undergrad, instructor consent;  
Instructor: Williams, Gloria M  
Description: Student may contact the instructor or department for information.

DHA 4193 Directed Study in Design, Housing, and Apparel  
A-F only, 1-4 credit(s), max credits 4; prerequisite Undergrad, instructor consent;  
Instructor: Guerin, Denise A  
Description: Student may contact the instructor or department for information.

DHA 4193 Directed Study in Design, Housing, and Apparel  
A-F only, 1-4 credit(s), max credits 4; prerequisite Undergrad, instructor consent;  
Instructor: Johnson, PhD, Kim KP  
Description: Student may contact the instructor or department for information.

DHA 4193 Directed Study in Design, Housing, and Apparel  
A-F only, 1-4 credit(s), max credits 4; prerequisite Undergrad, instructor consent;  
Instructor: Bye, Elizabeth Kersch  
Description: This course is designed for clothing design majors only. It is a studio class with the objectives of understanding and applying methods of marketing self and line of clothing, analyzing the varieties of production techniques appropriate for selected clothing designs, understanding and applying the principles of costing in designing clothing, applying principles of mass production in designing a line of clothing, and developing a professional portfolio to communicate clothing design philosophy and technical skills.  
Style: 20% Lecture. Studio  
Grading: 100% special projects.

This information is accurate as of 6/9/2008 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.
DHA 4247 Advanced Buying and Sourcing
A-F only, 3 credit(s); prereq 3242, [DHA major or minor or dept consent ];
Instructor: Johnson PhD.Kim KP
Description: Student may contact the instructor or department for information.

DHA 4330 Surface Fabric Design Workshop
A-F only, 4 credit(s), max credits 8;
Instructor: Martinson,Barbara Elizabeth
Description: Student may contact the instructor or department for information.

DHA 4334 Computer Applications II: Design for the Digital Environment
A-F only, 3 credit(s); prereq [2334 or instr consent ];[ DHA major or DHA grad student or instr consent ], pass portfolio review;
Instructor: Hokanson,Brad
Description: Student may contact the instructor or department for information.

DHA 4345 Advanced Typographic Design
A-F only, 4 credit(s); prereq [2351, DHA major] or DHA grad student or instr consent ;
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

DHA 4351 Design Process: Photography
A-F only, 3 credit(s); prereq 1311, 1312, [DHA major or grad or pre-major];
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

DHA 4354 Graphic Design IV: Integrative Campaign
A-F only, 4 credit(s); prereq 3353, DHA major;
Instructor: STAFF
Description: This course will focus on a multi-faceted designed communication campaign involving substantial investigation and conceptual application. The project undertaken will be, in large part, developed by the individual student as a result of his/her research and specific interests. The multi-faceted character of the project will support a unified theme/concept/idea for an identified client that is aimed effectively at a specific market or interest group. The completed project will demonstrate the student's ability to maximally apply acquired knowledge, skill and understanding of design, including a high degree of thought and sophisticated creativity. The course will build on typographic, compositional and imaging skills that students have developed in earlier classes.
Style: 30% Lecture, 30% Discussion. studio time
Grading: 25% class participation, 75% other evaluation. design project

DHA 4355 Graphic Design Portfolio
S-N only, 3 credit(s); prereq [4354 or 4365], DHA major;
Instructor: Boyd-Brent,James W
Description: Student may contact the instructor or department for information.

DHA 4365W Graphic Design Senior Seminar
A-F only, 3 credit(s); prereq 4354, DHA major; Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive;
Instructor: Hokanson,Brad
Description: Student may contact the instructor or department for information.

DHA 4461 Housing Development and Management
A-F only, 3 credit(s); prereq [2401, 2402, 2463] or grad student or instr consent ;
Instructor: Zollinger,Stephanie Watson
Description: This course focuses on development and management issues in multifamily housing. The subjects of study include: multifamily housing development planning and financing (particularly public financing), management approaches, management issues with specific residential populations such as the elderly and families with children, and affordable housing issues including public housing, cooperatives, manufactured or mobile homes, and community land trusts.
Style: 40% Lecture, 2% Film/Video, 10% Discussion, 5% Small Group Activities, 13% Student Presentation, 30% Guest Speakers.
Grading: 10% mid exam, 10% final exam, 40% reports/papers, 24% special projects, 16% reflection paper.
Exam Format: Exams are essay exams taken outside of class time on the Web through the course WebVista site.

DHA 4608 Interior Design Thesis
A-F only, 4 credit(s); prereq 4615W with grade of at least C-, DHA major; Meets CLE req of Writing Intensive;
Instructor: Guerin,Denise A
Description: Student may contact the instructor or department for information.

DHA 4608 Interior Design Thesis
A-F only, 4 credit(s); prereq 4615W with grade of at least C-, DHA major; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Directed study in design, housing and apparel. The topics, course content and readings are developed under the guidance of the supervising faculty member. Typically reserved for graduate students.
Style: Working with supervising faculty
Grading: 100% reports/papers. Or may be related to a project

This information is accurate as of 6/9/2008 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 University of Minnesota - Course Guide for Twin Cities Campus Fall 2008

**DHA 5341 Interactive Design I**
A-F only, 3 credit(s); prereq [[4334], [DHA major or grad student], pass portfolio review] or instr consent
Instructor: Hokanson, Brad

Description: Objectives: In this course, students will: develop a greater understanding of the use of interactive media; create Internet sites that utilize the work of the class; improve file management and theoretical understanding of computers; develop interface design skills; develop a high level of skill in the area of coding and Flash animation; use a diversity of approaches and tools in the solution of problems; continue to develop skills in pre-planning of interactive presentations; evaluate work by themselves and by peers; have their work evaluated by others; continue integration and application of the principles of design into their work in computer media.

**Style:** 10% Lecture, 15% Discussion, 70% Laboratory. Field trips

**Grading:** 22% in-class presentation, 23% class participation, 10% Lecture, 15% Discussion, 70% Laboratory. Field trips

**DHA 5342 Interactive Design 2: Interface Design**
A-F only, 3 credit(s); prereq [[4334] or 5341], [DHA major or DHA grad student] or instr consent
Instructor: Hokanson, Brad

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

**DHA 5463 Housing Policy**
A-F only, 3 credit(s); prereq 2401, 2463 or instr consent
Credit will not be granted if credit has been received for: PA 5261
Instructor: Crump, Jeffrey R

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

**DHA 5469 Understanding Housing: Assessment and Analysis**
A-F only, 3 credit(s); prereq [2401, 2463] or instr consent
Instructor: Crump, Jeffrey R

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

**DHA 5471 Housing Studies Certificate Seminar**
A-F only, 2 credit(s); prereq Admitted to Housing Studies Certificate Prog;
Instructor: Bruin, Marilyn J

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

**DHA 5484 Rural Housing Issues**
A-F only, 3 credit(s); prereq 2401, 2463 or instr consent
Instructor: Ziebarth, Ann

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

**DHA 8114 Design Studio**
A-F only, 4 credit(s); prereq instr consent;
Instructor: Jasper, Daniel

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

**DHA 8181 Ethics and Research**
S-N only, 1 credit(s); prereq Grad student;
Instructor: Martinson, Barbara Elizabeth

Description: Student may contact the instructor or department for information.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
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</tr>
</thead>
<tbody>
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<td>Hadjiyanni, Tasoulla</td>
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DHA 8193 Directed Study in Design, Housing, and Apparel
A-F only, 1-3 credit(s), max credits 8, 8 repeats allowed; prereq instr consent;
Instructor: Martin, PhD, Caren Samter
Description: Student may contact the instructor or department for information.

DHA 8193 Directed Study in Design, Housing, and Apparel
A-F only, 1-3 credit(s), max credits 8, 8 repeats allowed; prereq instr consent;
Instructor: Williams, Gloria M
Description: Student may contact the instructor or department for information.

DHA 8193 Directed Study in Design, Housing, and Apparel
A-F only, 1-3 credit(s), max credits 8, 8 repeats allowed; prereq instr consent;
Instructor: Johnson PhD, Kim KP
Description: Student may contact the instructor or department for information.

DHA 8193 Directed Study in Design, Housing, and Apparel
A-F only, 1-3 credit(s), max credits 8, 8 repeats allowed; prereq instr consent;
Instructor: Delong, Marilyn R
Description: Student may contact the instructor or department for information.

DHA 8193 Directed Study in Design, Housing, and Apparel
A-F only, 1-3 credit(s), max credits 8, 8 repeats allowed; prereq instr consent;
Instructor: Zollinger, Stephanie Watson
Description: Student may contact the instructor or department for information.

DHA 8193 Directed Study in Design, Housing, and Apparel
A-F only, 1-3 credit(s), max credits 8, 8 repeats allowed; prereq instr consent;
Instructor: McCarthy, Steven J
Description: Student may contact the instructor or department for information.

DHA 8193 Directed Study in Design, Housing, and Apparel
A-F only, 1-3 credit(s), max credits 8, 8 repeats allowed; prereq instr consent;
Instructor: Crump, Jeffrey R
Description: Student may contact the instructor or department for information.

DHA 8193 Directed Study in Design, Housing, and Apparel
A-F only, 1-3 credit(s), max credits 8, 8 repeats allowed; prereq instr consent;
Instructor: Bruin, Marilyn J
Description: Student may contact the instructor or department for information.

DHA 8193 Directed Study in Design, Housing, and Apparel
A-F only, 1-3 credit(s), max credits 8, 8 repeats allowed; prereq instr consent;
Instructor: Jasper, Daniel
Description: Student may contact the instructor or department for information.

DHA 8222 Plan B Master's Project
S-N only, 3 credit(s); prereq DHA master's student, instr consent;
Instructor: Labat, Karen Louise
Description: Student may contact the instructor or department for information.
DHA 8222 Plan B Master's Project
S-N only, 3 credit(s); prereq DHA master's student, instr consent;
Instructor: Williams, Gloria M
Description: Student may contact the instructor or department for information.

DHA 8222 Plan B Master's Project
S-N only, 3 credit(s); prereq DHA master's student, instr consent;
Instructor: Hokanson, Brad
Description: Student may contact the instructor or department for information.

DHA 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;
Instructor: Waldron, Carol C
Description: Student may contact the instructor or department for information.

DHA 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;
Instructor: Boyd-Brent, James W
Description: Student may contact the instructor or department for information.

DHA 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;
Instructor: McCarthy, Steven J
Description: Student may contact the instructor or department for information.

DHA 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;
Instructor: Jasper, Daniel
Description: Student may contact the instructor or department for information.

DSSC 8112 Scholarship and Public Responsibility
S-N only, 2 credit(s); prereq Grad DSSC minor or instr consent;
Instructor: Spangler, George R
Description: Student may contact the instructor or department for information.

DSSC 8212 Doctoral Research Workshop in Development Studies and Social Change
S-N only, 1 credit(s); prereq Grad DSSC minor or instr consent;
Instructor: Anderson, Dorothy Helen
Description: Student may contact the instructor or department for information.

Dutch
205 Folwell Hall

DTCH 1002 Beginning Dutch
5 credit(s); prereq 1001; Credit will not be granted if credit has been received for: DTCH 4002;
Instructor: Oosterhoff, Jenneke A
Description: Welkom terug in Nederlands 1002. This is the second course in the first-year language instruction sequence (1001-2), designed to develop a basic communicative proficiency in Dutch.
in Dutch. Note: This is second semester beginning Dutch, so it is not a total beginner's course. Students will practice the four language skills (speaking, writing, reading, and listening) and learn to handle simple, everyday transactions. The main book is the text book package of Code? volume 1. The book is accompanied by a cd-rom which is meant for independent work by the students at home. Class time will be devoted to mostly speaking and listening skills. Supplementary materials about life and culture in Holland (short authentic and literary texts, songs, video, and 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 new topics to be introduced includes: health, comparing school systems, the arts, finding a job, friends and family etc. Students should expect an average of 2 hours of outside preparation for each class session. See the description for Dutc 4002 for an option for qualified students to register for this course for 2 credits instead of 5 credits.

**DTCH 1004 Intermediate Dutch**

5 credit(s); prereq 1003; Credit will not be granted if credit has been received for: DTCH 4004;

*Description:* This course continues the presentation of language skills (speaking, writing, listening and reading) begun in Dutc 1003 with special focus on the extension of speaking and writing skills (in preparation for the LPE and OPI). The main course book used in this class is the textbook and cd-rom package of Code, volume 2. This book is accompanied by audio materials 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 4 formal essays, each of which will be followed by a rewrite. In addition, you will read a Dutch novel and a number of short newspaper articles. 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 Dutc 4004 for an option for qualified students to register for this course for 2 credits instead of 5 credits.

*Style:* 20% Lecture, pre-writing and interactive exercises

*Grading:* 10% mid exam, 10% final exam, 30% quizzes, 20% class participation, 30% other evaluation. written assignments

**Exam Format:** quizzes, essays

**DTCH 3993 Directed Studies**

1-5 credit(s), max credits 12, 12 repeats 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 4002 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 1002;

*Instructor:* Oosterhoff,Jenneke A

*Description:* Welkom terug in Nederlands 4002. This is the second course in the first-year language instruction sequence (4001-2), designed to develop a basic communicative proficiency in Dutch. Note: This is second semester beginning Dutch, so it is not a total beginner's course. Students will practice the four language skills (speaking, writing, reading, and listening) and learn to handle simple, everyday transactions. The main book is the text book package of "Code" volume 1. The book is accompanied by a cd-rom which is meant for independent work by the students at home. Class time will be devoted to mostly speaking and listening skills. Supplementary materials about life and culture in Holland (short authentic and literary texts, songs, video, and 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 new topics to be introduced includes: health, comparing school systems, the arts, finding a job, friends and family etc. Students should expect an average of 2 hours of outside preparation for each class session.

*Style:* 20% Lecture, interactive exercises (incl lab)

*Grading:* 10% mid exam, 10% final exam, 40% quizzes, 20% class participation, 20% other evaluation. written homework

**Exam Format:** Quizzes and essays

**DTCH 4004 Intermediate 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 1004;

*Instructor:* Oosterhoff,Jenneke A

*Description:* This course continues the presentation of language skills (speaking, writing, listening and reading) begun in Dutc 4003 with special focus on the extension of speaking and writing skills (in preparation for the LPE and OPI). The main book for this course is the textbook and cd-rom package of Code, volume 2. This book is accompanied by audio materials 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 4 formal essays, each of which will be followed by a rewrite. In addition, you will read a Dutch novel and a number of short newspaper articles. 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.

*Style:* 20% Lecture, pre-writing and interactive exercises

*Grading:* 10% mid exam, 10% final exam, 30% quizzes, 20% class participation, 30% other evaluation. written assignments

**Exam Format:** quizzes, essays

**DTCH 3510 Topics in Dutch Culture**

3 credit(s), max credits 9, 3 repeats allowed; prereq No knowledge of Dutch required;

*Instructor:* Oosterhoff,Jenneke A

*Description:* Please check the course description for Dutch 3012 with which this course is crosslisted. Note: The prerequisite for this course is Dutch 3011 or an equivalent. Students do need to know enough Dutch to read texts in the original and to participate in class discussions in Dutch. This course counts towards the Dutch Studies minor.

**Exam Format:** essays

**DTCH 5993 Directed Studies**

1-4 credit(s), max credits 12, 12 repeats 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.
EAS 3013 Introduction to East Asian Art
3 credit(s); Credit will not be granted if credit has been received for: ARTH 3013;
Instructor: Poor, Robert John
Description: This course will examine a representative selection of the art produced in China, Korea, and Japan from the Neolithic era down to Modern times. Art of every type and style, such as ancient jades and ritual bronze vessels, Buddhist sculpture and temple architecture, landscape paintings and gardens, and popular paintings and prints is included. We will employ archaeological and art historical techniques to situate these objects in their cultural setting while underlying their character as unique works of art. This course will be web enhanced and a teaching assistant will be available to assist you in the preparation of a short take-home museum assignment. This course is intended for undergraduates. No previous courses in art history are required.
Style: 80% Lecture, 20% Discussion.
Grading: 33% mid exam, 33% final exam, 33% reports/papers.
Exam Format: essay

EAS 3482 Asia in the Age of Empires, 1600-1850: Everyday Life and Contacts in Early Modern Asia
3-4 credit(s), max credits 4, 1 repeat allowed; Credit will not be granted if credit has been received for: HIST 3462; Meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme;
Instructor: Issett, Christopher Mills
Description: This course is designed to introduce the main themes of East Asian history since 1500, focusing primarily on the histories of China, Japan, Korea and Vietnam. The course examines long-term changes, trends, and continuities in society, economy, politics and culture. The course also looks at the connections within Asia and between Asia and the rest of world over this period. Class time will be devoted mostly to lectures, but will also include time for questions, discussion, and film. Grades are based on performance in mid-term (25%), final exam (35%), two 5-6 page papers (15% each), and participation in discussion (10%). The reading load is moderate to heavy, with about 75 pages a week in translate primary sources and secondary books.
Style: 70% Lecture, 20% Discussion.
Grading: 25% mid exam, 35% final exam, 30% reports/papers, 10% class participation.
Exam Format: Written exam/blue book/essay and identifications

EAS 3465W China in the Ming and Qing Dynasties
3 credit(s); Credit will not be granted if credit has been received for: HIST 3465W; Meets CLE req of Writing Intensive;
Instructor: Waltner, Ann Beth
Description: Student may contact the instructor or department for information.

EAS 3940 Topics in Asian History: History of Chinese Cities and Urban Life
3 credit(s), max credits 16, 16 repeats allowed; prereq Jr or sr or instr consent;
Instructor: Wang, Liping
Description: Student may contact the instructor or department for information.

EEB 3001 Ecology and Society
A-F only, 3 credit(s); prereq [Jr or sr] recommended; biological sciences students may not apply cr toward major; Credit will not be granted if credit has been received for: BIOL 3407; Meets CLE req of Environment Theme;
Instructor: Powers, Jennifer Sarah
Description: Student may contact the instructor or department for information.

EEB 4068 Plant Physiological Ecology
OPT No Aud, 4 credit(s); prereq BIOL 2022 or BIOL 3002 or BIOL 3407 or BIOL 3408W or instr consent;
Instructor: Cavender-Bares, Jeannine Marie
Description: Student may contact the instructor or department for information.

EEB 4134 Introduction to Ornithology
4 credit(s); prereq Biol 1001 or Biol 2012;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

EEB 4329 Primate Ecology and Social Behavior
A-F only, 3 credit(s); prereq BIOL 1009 or BIOL 2002 or BIOL 3411 or ARTH 1001 or instr consent;
Instructor: Pusey, Anne Elizabeth
Description: Student may contact the instructor or department for information.

EEB 4611 Biogeochemical Processes
3 credit(s); prereq [CHEM 2301, PHYS 1201] or instr consent;
Instructor: Cotner, James B
Description: Application of biochemistry, ecology, chemistry, and physics to environmental issues. Impact of humans on biogeochemical processes in soils, lakes, oceans, estuaries, forests, urban/managed ecosystems, and extreme environments (e.g., early Earth, deep sea vents, thermal springs).
Style: 80% Lecture, 20% Discussion.
Grading: 20% mid exam, 20% final exam, 20% reports/papers, 20% in-class presentation, 20% problem solving.
Exam Format: Essay

EEB 5068 Plant Physiological Ecology
OPT No Aud, 4 credit(s);
Instructor: Cavender-Bares, Jeannine Marie
Description: Student may contact the instructor or department for information.

EEB 5146 Science and Policy of Global Environmental Change
A-F only, 3 credit(s); prereq Biol 3407 Biol 5407 or equiv; Credit will not be granted if credit has been received for: FR 5146;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

EEB 5371 Principles of Systematics
3 credit(s); prereq Grad student or instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

EEB 5601 Limnology
3 credit(s); prereq Grad student or instr consent;
Instructor: STAFF
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, 1102; Credit will not be granted if credit has been received for: APEC 1101; Meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; Instructor: STAFF
Description: 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. in discussion section

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; Meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; Instructor: STAFF
Description: This is an introductory course in Economics. It includes the study of macroeconomic indicators; the role of money; role of fiscal and monetary policy; international trade; interdependencies among nations.
Style: 75% Lectur. discussion section

ECON 301 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 I 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 interdependencies among nations.
Style: 100% Lecture. in discussion section

ECON 3012 Intermediate Macroeconomics
4 credit(s); prereq 3011 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 3011, 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 3011. 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 3701 Money and Banking
3 credit(s); prereq 1101, 1102 or equiv; not open to Econ majors; Credit will not be granted if credit has been received for: ECON 4721; Instructor: STAFF
Description: This course is for non-majors in Economics. It includes an introduction to the history and role of financial institutions, the Federal Reserve system and banking, and monetary policy.
Style: 100% Lecture. Exam Format: Some problems and short essays

ECON 4100W Undergraduate Writing in Economics
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.
Style: No formal meeting time. Please contact the instructor via email.
Grading: 100% reports/papers.

ECON 4113 Introduction to Mathematical Economics
4 credit(s); prereq 3011, 3012 or equiv, Math 1271-1272-2243 or equiv; Instructor: STAFF
Description: The course includes the central mathematical techniques used in the mathematical approach to economic analysis. Includes optimization with constraints, emphasizing the approach derived from multivariate calculus.
Style: 95% Lecture. 5% Discussion.

ECON 4171 History of Economic Thought
3 credit(s); prereq 3011, 3012 or equiv; Instructor: STAFF
Description: Covers history of economic thought - includes the Mercantilist and Physiocratic doctrines, Adam Smith, Ricardo, Malthus, Marx, Keynes, and modern theory. Some additional topics at the discretion of the instructor.
Style: 90% Lecture. 10% Discussion. Exam Format: essays

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 4311 Economy of Latin America**
3 credit(s); prereq [1101, 1102] or equiv;
Instructor: STAFF
Description: Economic evolution in Latin America since the 1950s. Development, growth, trade, liberalization, poverty, inflation, budgets, other important issues in the Latin American economies.
Style: 90% Lecture, 10% Discussion.
Exam Format: essays

**ECON 4315 The Japanese Economy**
3 credit(s); prereq 1101, 1102 or equiv;
Instructor: STAFF
Description: Economic development of Japan. Issues covered include trade, development, growth, population, capital formation, international economic relations, agricultural and industrial policies, role of government, and current issues.
Style: 95% Lecture, 5% Discussion.

**ECON 4331W 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 4331W is a writing intensive course, and students need at least a C in the paper to pass the course. Economic growth and development - indicators, evidence in low and high income countries. Growth theory. Resource allocation.
Style: 90% Lecture, 10% Discussion.

**ECON 4337 Comparative Economic Systems**
3 credit(s); prereq 3101, 3102 or equiv; Credit will not be granted if credit has been received for: ECON 4307; Meets CLE req of International Perspect Theme;
Instructor: STAFF
Description: Study of various economic systems, functions and comparisons. Post-socialist transitions in Eastern Europe, Russia, Asia, and China. Economic reforms. Case studies of various countries.
Style: 90% Lecture, 10% Discussion.
Exam Format: essays, short problems

**ECON 4401 International Economics**
3 credit(s); prereq [[1101, 1102] or equiv], not open to econ majors; Meets CLE req of International Perspect Theme;
Instructor: STAFF
Description: Not for Economics majors. Includes material on international trade and international finance. Theories of trade, trade restrictions, commercial policy. Exchange rates, international monetary systems.
Style: 90% Lecture, 10% Discussion.
Exam Format: essay, short problems

**ECON 4431H Honors Course: International Trade**
4 credit(s); prereq [[3101, 3102] or equiv], Math 1271; Meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Offered mainly for Economics majors. The course studies international trade including trade theories, trade and growth, trade restrictions, regional trading blocs, protection, and regional integration. This is a writing intensive course, and students need at least a C in the paper to pass the course. Main emphasis on trade theories. URL address will be available later.
Style: 95% Lecture, 5% Discussion.

**ECON 4431W International Trade**
3 credit(s); prereq 3101, 3102 or equiv; Meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive;
Instructor: Sahi, Simran
Description: Offered mainly for Economics majors, though we happily accept other students if they have successfully completed the prerequisites PRIOR to taking the course. The course studies international trade including trade theories, trade and growth, trade restrictions, regional trading blocs, protection, and regional integration. This is a writing intensive course, and students need at least a C in the paper to pass the course. Real world applications and examples abound. URL address will be available later.
Style: 90% Lecture, 10% Discussion.
Grading: 25% mid exam, 25% final exam, 25% reports/papers, 25% problem solving. Evaluation is subject to change.
Exam Format: essay and true/false explain.

**ECON 4432W International Finance**
3 credit(s); prereq 3101, 3102 or equiv; 4431 or 4439 or equiv recommended; Meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Balance of payments, international financial markets, exchange rates, international monetary systems, international investment and capital flows, open economy macroeconomic policy.
Style: 95% Lecture, 5% Discussion.

**ECON 4601 Honors Course: Urban Economics**
4 credit(s); prereq 3101 or equiv;
Instructor: STAFF
Description: Economics of urbanization. Location of economic activity and of cities. Urban economic problems and policies.

**ECON 4631 Industrial Organization and Antitrust Policy**
3 credit(s); prereq 3101 or equiv; Credit will not be granted if credit has been received for: ECON 4631H;
Instructor: STAFF
Description: Relations between market structure, economic efficiency and welfare. Economic origins of market imperfections - monopoly and other restraints on competition. Purpose of antitrust and related legislation and effects. Industrial policy. Some case studies. This course is sometimes offered concurrently with Econ 3601.
Style: 90% Lecture, 10% Discussion.
Exam Format: problems and short essays

**ECON 4721 Money and Banking**
3 credit(s); prereq 3101 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 4731H Honors Course: Macroeconomic Policy**
4 credit(s); prereq [[3101, 3102] or equiv], Math 1271, honors;
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. This honors section will analyze the topics more in-depth than the corresponding regular section and will require a couple of extra readings.
Style: 95% Lecture, 5% Discussion.
Grading: 45% mid exam, 45% final exam, 10% problem solving. Exam Format: questions, essays

**ECON 4741H Honors: Quantitative Analysis of the Macroeconomy**
University of Minnesota - Course Guide for Twin Cities Campus

Fall 2008

This information is accurate as of 6/9/2008 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 [[3101, 3102] or equiv), [Stat 3011 or equiv];
Instructor: STAFF
Style: 95% Lecture, 5% Discussion.
Exam Format: problems, short essays

EDCON 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

EDCON 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

EDCON 4993 Directed Study
1-4 credit(s), max credits 4, 1 repeat allowed; prereq For honors thesis, instr consent;
Instructor: STAFF
Description: This is for economics honors theses only.

Education and Human Development

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: Samuels,S Jay
Description: The purpose of this course is to help pre-service teachers learn how to use psychology to improve all aspects of instruction.
Style: 50% Lecture, 50% Discussion.
Grading: 33% mid exam, 33% final exam, 33% special projects.
Exam Format: Multiple choice

EDHD 5003 Developmental and Individual Differences in Educational Contexts
A-F only, 3 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 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: Brunner,C Cryss
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: Peterson,Darrell Howard
Description: Student may contact the instructor or department for information.

Educational Policy and Administration

EDPA 2124 Intercultural Communication and Service Learning: Interdisciplinary Approaches to Public Engagement
A-F only, 3 credit(s);
Instructor: Williams,Andrew L
Description: Most appropriate for students who have taken at least one year of coursework. This course examines the increasing complexity of religious belief in America and the conflicts they engender. These conflicts are part of the larger story of religious expression and the role of religion in American life.

EDPA 3100 Special Topics for Undergraduates
3 credit(s); max credits 9, 9 repeats allowed;
Instructor: STAFF
Description: Inquiry into educational policy and administration problems and issues. No special topic has yet been approved for Fall 2000.

EDPA 3101 Special Topics for Undergraduates
1-3 credit(s), max credits 9, 9 repeats allowed;
Instructor: Osburn,Robert H
Description: Most appropriate for students who have taken at least one year of coursework. This course examines the increasing complexity of religious belief in American life and the conflicts they engender. These conflicts are part of the larger story of religious expression and the role of religion in American life.

EDPA 3103 Global Identity: Connecting Your International Experience to Your Future
S-N only, 1 credit(s); prereq [3102 or instr consent], studying abroad the semester student is enrolled in course;
Instructor: Paige,R Michael
Description: Student may contact the instructor or department for information.

EDPA 3701 History of U.S. Higher Education
A-F only, 3 credit(s);
Instructor: STAFF
Description: Student may contact the instructor or department for information.

EDPA 3701 History of U.S. Higher Education
A-F only, 3 credit(s);
Instructor: Poch,Robert Karl
Description: This course provides an historical overview of
higher education in the United States from ancient and medieval roots to the present. Emphasis is placed on major issues including, but not limited to, student access, equality of opportunity, faculty autonomy, and the role and influence of organized religion, business, and corporate leadership on curriculum and institutional management. While primarily historical in approach, the course also includes anthropological, architectural, sociological, and other disciplinary lenses to examine the development of U.S. higher education and the response of students, faculty, administrative leaders, governing board members, and state and federal leaders to issues and challenges through time. Students will examine and utilize the tools of historical inquiry and detection, including the framing of research questions and the analysis and use of primary and secondary source materials in discovering and communicating information about the development of higher education. Classroom activities will involve a combination of instructor presentations enhanced by technology-based resources, including the use of web-based library tools and archival materials, small discussion groups that utilize cooperative learning strategies, and student presentations that demonstrate outcomes of student research using University of Minnesota archival materials.

Grading: 75% reports/papers, 15% in-class presentation, 10% class participation.

EDPA 5044 Introduction to the Economics of Education
3 credit(s);
Instructor: Fry,Gerald Walton
Description: Costs and economic benefits of education, with a focus on K-12; educational markets, prices, and production relationships; investment and cost-benefit analysis.

EDPA 5061 Ethnographic Research Methods
3 credit(s);
Instructor: Fry,Gerald Walton
Description: This seminar provides an overview of the various approaches to doing ethnographic research. Among techniques and methods to be examined are accessing communities; formulation of questions; various types of interviewing; participant-observation; selecting and working with informants; life history research and understanding cultural identities; case studies; and writing up field data. The uses and abuses of ethnography as a tool for studying other cultures is critically assessed. Also considered are ethical issues in the use of ethnography. In the course there is a special emphasis on experiential education and learning. Students will conduct a mini-ethnography, directly relevant to their professional interests. There are no examinations, but instead a set of experiential activities to enhance students' competence in doing ethnographic research. Each student will develop a portfolio of writings related to various activities. A major goal is to have students develop professional competency in using various ethnographic research methods. There is a special focus on the non-Western critique of conventional cross-cultural research and the emergence of indigenous approaches to research. A key text for the course is a volume by Linda Tuhiwai Smith titled "Decolonizing Methodologies." The course is intended for graduate students or seniors who anticipate doing intercultural and/or international research.

Style: 30% Lecture, 70% Discussion.
Grading: 80% reports/papers, 10% in-class presentation, 10% class participation.
Exam Format: None

EDPA 5080 Special Topics: Educational Policy and Administration
1-3 credit(s), max credits 24, 24 repeats allowed;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

EDPA 5080 Special Topics: Educational Policy and Administration
1-3 credit(s), max credits 24, 24 repeats allowed;
Instructor: Ropers-Huilman,Rebecca Lynn
Description: Topic: Gender in Higher Education

EDPA 5087 Seminar: Educational Policy and Administration
1-3 credit(s), max credits 24, 24 repeats 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 repeats 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 repeats 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: Dejaeghere,Joan Gerlyn
Description: This course examines social science theories regarding the relationship between education and development. Education is broadly defined to include all levels, from early childhood to post-secondary, as well as types (formal-nonformal-informal). Development is considered in global, regional, national, local and human/personal terms. The concept of development, in economic, political and sociocultural terms, is explored and critiqued through multidisciplinary perspectives and from historical to contemporary debates in social science theories. In writing groups and discussions, students analyze and critique a range of theories, from human capital to modernization to feminist to post colonial theories. We examine hypotheses, assumptions, and empirical evidence that explains, or negates, education's role in the development of societies. Critical issues in education and development are discussed. An important objective of this course is to understand and critically analyze theories and their use in explaining education's role in development.

EDPA 5102 Knowledge Formats and Applications: International Development Education Contexts
3 credit(s);
Instructor: Harkins,Arthur M
Description: Knowledge Formats and Applications describes and explains the growing presence of knowledge as a resource in the multi-institutional global economy. Knowledge is defined as the means by which information resources are transformed into valuable products and services. First identified by Peter Drucker over thirty years ago, knowledge workers are now 40% of the U.S. workforce and growing. Knowledge mining and refining, innovation, management and application are covered, together with the role of telecomputing in supporting these interrelated functions. Students' papers utilize course resources to explore potential applications of knowledge systems and workers at selected points within the global framework. The class is Web CT-supported

Style: 40% Lecture, 30% Discussion. student reports
Grading: 40% reports/papers, 30% class participation, 30% other evaluation. paper-support portfolio

EDPA 5121 Educational Reform in International Context
3 credit(s);
Instructor: Chapman,David W
Description: Critical policy analysis of educational innovation and reform in selected countries. Use theoretical perspectives and a variety of policy analysis approaches to examine actual educational reforms and their implementation.

EDPA 5124 Critical Issues in International Education and Educational Exchange
3 credit(s); Meets CLE req of International Perspect Theme;
Instructor: Fry,Gerald Walton
Description:
Description: Analysis of comprehensive policy-oriented frameworks for international education; practices of U.S. and other universities; conceptual development of international education and its practical application to programs, to employment choices, and to pedagogy.

EDPA 5128 Anthropology of Learning
3 credit(s); Credit will not be granted if credit has been received for: ANTH 5128;
Instructor: Demerath,Peter
Description: Student may contact the instructor or department for information.

EDPA 5132 Intercultural Education and Training: Theory and Application
3 credit(s);
Instructor: Kappler,Barbara Jean
Description: Student may contact the instructor or department for information.

EDPA 5142 Global Youth Policy and Leadership: Strategic Projections, Visions, and Alternative Futures
A-F only, 3 credit(s); prereq CIDE student or instr consent;
Instructor: Harkins,Arthur M
Description: Address strategic trends in global youth development, including positive/negative implications. Attention to reconciling positive/negative trends with normative scenarios with respect to presence, absence, and projected likelihood of suitable policies, workable collaborations, and funding.

EDPA 5302 Educational Policy: Context, Inquiry, and Issues
3 credit(s);
Instructor: STAFF
Description: Review of social science concepts/research in considering educational policies/issues; process of inquiry that affect policy development, implementation, evaluation. Focus on preK-12. Role of educational leaders, administrators.

EDPA 5310 Data-Driven Decision Making I
1 credit(s); prereq Broadband Internet access, a newer computer;
Instructor: Nielsen,Kristine Bryan
Description: Student may contact the instructor or department for information.

EDPA 5313 Legal and Ethical Issues in School Technology
1 credit(s); prereq Broadband Internet access, a newer computer;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

EDPA 5315 School Technology Leadership Multimedia Project
1 credit(s); prereq [Mac or PC] with 256 MB RAM, [Windows NT 2000 or XP or Mac OS 9 or 10], Pentium [2 or faster], internet connection, [Netscape or Internet Explorer], virus protection software, School Technology Leadership or instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

EDPA 5321 The Principal as Leader of High-Performing Schools
3 credit(s);
Instructor: Werner PhD,Ann Zweber
Description: This course is an overview of the knowledge, skills and behaviors necessary for a K-12 principal. The roles of the principal as a leader and manager will be addressed. Through readings, case studies, resource speaker, and reflective class interaction the student will explore theory and practices designed to develop administrative thought processes and techniques for implementation of systems in an effective school.
Style: 25% Lecture, 50% Discussion, 25% Laboratory.
Grading: 50% reports/papers, 25% class participation, 25% other evaluation. reading

EDPA 5323 Women in Leadership
3 credit(s); prereq Technology access, instr consent;
Instructor: Brunner,C Cyss
Description: Provides opportunities for male and female students to consider, learn about, explore, examine, research, think about, and discuss the topic of women in leadership within the context of larger systems and their own lives. Designed to advance the greater aims of supporting equity and equality across all areas of difference.

EDPA 5324 Strategic Financial Planning and Policy for Educational Leaders
3 credit(s); prereq Grad student pursuing licensure as elementary-secondary [principal or superintendent];
Instructor: Wilson,Thomas Francis
Description: Student may contact the instructor or department for information.

EDPA 5348 Leaders of Human Resources Administration
2 credit(s); prereq Designed for students working on licensure for dir of community educ or superintendent or K-12 principal or dir of special educ;
Instructor: Lovett,Michael James
Description: Provides an overview of state-local school finance systems, budgeting, governmental fund accounting, and interpretation of financial information. For graduate students pursuing licensure as elementary-secondary principals and superintendents.

EDPA 5356 Disability Policy and Services
3 credit(s);
Instructor: Johnson,David Richard
Description: This course provides a broad overview of disability policy and services and introduces students to philosophical approaches to service provision, historical development and context of community services for persons with disabilities, and contemporary approaches to providing services to people with disabilities throughout the life cycle. Researchers and professionals from the University of MN and community will offer information and best practical examples of service delivery approaches. Lecture, discussion and presentation by students are the primary focus of methods.
Style: 50% Lecture. 50% Discussion.
Grading: 35% final exam, 20% reports/papers, 40% special projects, 5% class participation.
Exam Format: Essay

EDPA 5361 Project in Teacher Leadership
S-N only, 3 credit(s), max credits 6, 1 repeat allowed; prereq MEd student in Teacher Leadership Program; Credit will not be granted if credit has been received for: CI 5178;
Instructor: York-Barr,Jennifer
Description: Create, implement, evaluate, and present a leadership project designed to initiate positive change in educational environments. Review of related literature, proposal development, project development, implementation and evaluation, critical reflection, sharing learning outcomes.

EDPA 5368 Leadership for Special Education Services
3 credit(s); prereq Administrator or supervisor or professional responsible for managing general or special or alternative education program;
Instructor: Riesgraf,Kim Marie Wogenensen
Description: Class Description: Legislative, procedural, executive, and judicial actions that affect services, families, and children with special needs at all levels of government; federal,
EDPA 5381 The Search for Children and Youth Policy in the U.S.
3 credit(s);
Instructor: Schneider, Byron J
Description: Review of contemporary policy issues affecting children and youth in the U.S. and South Africa; identity national standards, norms and principles of youth development; conflicting expectations facing policy-makers; and search for the critical content of youth policy.

EDPA 5385 Licensure Seminar: Program Policies and Inclusionary Leadership
S-N only, 1 credit(s);
Instructor: Werner, PhD, Ann Zweber
Description: Preparation for licensure program. Program overview, preassessment, reflective practice, APA writing, exit panel review, administrative employment interview.

EDPA 5386 Leadership Portfolio Seminar
S-N only, 1 credit(s); prerequisite 5385 or Concurrent registration is required (or allowed) in 5385;
Instructor: Kumagai, Gloria Lynn
Description: Development of electronic administrative licensure portfolio as part of process to earn endorsement for licensure as a school superintendent, K-12 principal, director of special education, or director of community education.

EDPA 5387 Leadership for Teaching and Learning
2 credit(s); prerequisite Undergrad degree;
Instructor: York-Barr, Jennifer
Description: Administration of teaching/learning as a system in an inclusive school system. Multiple experts present components of system. Focuses on questions an administrator must address when functioning as leader of learning.

EDPA 5388 Leadership for Master(ful) Scheduling
2 credit(s); prerequisite 5387;
Instructor: Dewey, Jay Richard
Description: Strategies for personalizing schools. Building the master schedule. Hands-on "infinite campus student system." "Master schedule is built online." 

EDPA 5389 Community Education Leadership
3 credit(s);
Instructor: Latimer, Sally Winifred
Description: Competencies of leadership, community relations, communication, community assessment, program development, program evaluation. Philosophy/administration of community/alternative education programs.

EDPA 5393 Leading School Finance Elections
S-N only, 1 credit(s);
Instructor: Blaesing, Theodore
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 repeats allowed; prerequisite instructor consent;
Instructor: Nickerson, Jr., Neal C.
Description: Field experience or internship arranged for students seeking licensure as PK-12 principal/superintendent. Content/credit depend on licensure requirements specified in individual field experience agreement.

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 5501 Principles and Methods of Evaluation
3 credit(s); Credit will not be granted if credit has been received for: EPSY 5243;
Instructor: Ghere, Gail S
Description: Introduction to program evaluation. Planning an evaluation study, collecting and analyzing information, reporting results; evaluation strategies; overview of the field of program evaluation.
Style: 30% Lecture, 70% Discussion.
Grading: 20% midterm exam, 70% reports/papers, 10% class participation.
Exam Format: Multiple choice; short answer

EDPA 5524 Evaluation Colloquium
S-N only, 1 credit(s), max credits 24, 24 repeats allowed; prerequisite 5501 or EPSY 5243; Credit will not be granted if credit has been received for: EPSY 5246;
Instructor: STAFF
Description: Informal seminar of faculty and advanced students interested in the issues and problems of program evaluation.

EDPA 5528 Focus Group Interviewing Research Methods
3 credit(s);
Instructor: Krueger, Richard A
Description: Students will develop skills needed to conduct focus group interviews which involve learning and practicing techniques that result in successful focus groups. Students will be expected to conduct a focus group study and report results for the final class session. Attention is placed on using focus groups in interpretative environments suitable for academic research, or as mixed-method applied research in areas such as health, medical, educational, governmental and non-profit environments.

EDPA 5704 College Students Today
3 credit(s); Credit will not be granted if credit has been received for: EPSY 5451;
Instructor: Ropers-Huilman, Rebecca Lynn
Description: Student may contact the instructor or department for information.

EDPA 5724 Leadership and Administration of Student Affairs
2-3 credit(s), max credits 3, 1 repeat allowed; Credit will not be granted if credit has been received for: EPSY 5421;
Instructor: Wambach, Cathrine A
Description: Student may contact the instructor or department for information.

EDPA 8015 Research Design and Educational Policy
A-F only, 3 credit(s); prerequisite 8011, EdPA PhD student;
Instructor: Yeh, Stuart S
Description: This 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 research design, research questions and audience considerations.

EDPA 8015 Research Design and Educational Policy
A-F only, 3 credit(s);
Instructor: Yeh, Stuart S
Description: This 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 research design, research questions and audience considerations.

This information is accurate as of 6/9/2008 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.
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 8022 Education and Globalization: Anthropological Perspectives**
- A-F only, 3 credit(s);
- Instructor: Demerath, Peter
- 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 repeats allowed;
- prerequisite EdPA PhD candidate;
- Instructor: Dejaeghere, Joan Geralyn
- 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 repeats allowed;
- prerequisite EdPA PhD candidate;
- Instructor: Chapman, David W
- Description: Student may contact the instructor or department for information.

**EDPA 8143 Integrative Seminar in Global Youth Policy and Leadership**
- A-F only, 1 credit(s), max credits 3, 3 repeats allowed;
- prerequisite CIDE student or instr consent;
- Instructor: Harkins, Arthur M
- Description: 8143 is an "open" seminar, in the sense that guests of various professional and applied backgrounds are routinely invited to discuss current conditions and alternative futures for global youth, together with the policy and practice alternatives that could help these youth. Please contact Professor Arthur Harkins (harkins001@umn.edu) or Professor Byron Schneider (schnee002@umn.edu) for more 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-formulated 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 8321 Data Analysis for Educational Management**
- 3 credit(s);
- Instructor: Anderson, Melissa S.
- Description: Student may contact the instructor or department for information.

**EDPA 8502 Program Evaluation Theory and Models: Qualitative and Quantitative Alternatives**
- 3 credit(s); prerequisite 5501 or EPSY 5243;
- Instructor: Yeh, Stuart S
- Description: EdPA 8502 is an intermediate-level seminar course focusing on analysis of problems and issues in evaluation. The course text is a set of key articles by major figures in the field of evaluation. The course begins with an examination of a basic problem facing evaluators—the difficulty of conducting valid evaluations of complex social and educational programs and policies. Each evaluation approach is then examined as a response to this problem of complexity.
- Style: 30% Lecture, 70% Discussion.
- Grading: 50% term paper, 10% class participation, 40% group papers

**EDPA 8595 Evaluation Problems**
- 1-6 credit(s), max credits 24, 4 repeats allowed; prerequisite [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, 4 repeats allowed; prerequisite [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); prerequisite 5001, 5701;
- Instructor: Anderson, Melissa S.
- Description: Student may contact the instructor or department for information.

**EDPA 8703 Public Policy in Higher Education**
- A-F only, 3 credit(s); prerequisite 5001, 5701;
- Instructor: Poch, Robert Karl
- Description: Student may contact the instructor or department for information.

**EPSY 3119 Learning, Cognition, and Assessment**
- A-F only, 3 credit(s): Credit will not be granted if credit has been received for: EDHD 5001; Meets CLE req of Social Science Core;
- Instructor: Samuels, S Jay
- Description: The purpose of this course is to help pre-service teachers learn how to use psychology to improve all aspects of instruction.
- Style: 50% Lecture, 50% Discussion.
- Grading: 33% mid exam, 33% final exam, 33% special projects.
- Exam Format: Multiple choice

**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 Core;
- Instructor: Zieffler 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), correlation, and simple linear regression. 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 discussion groups. 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:** 22% mid exam, 22% final exam, 17% reports/papers, 17% quizzes, 22% other evaluation. Homework

**Exam Format:** Short-Answer, Multiple-Choice

**EPSY 3302 Introduction to Communication Skills for Educational and Community Settings**

**OPT No Aud, 3 credit(s);**

**Instructor:** Burke, Caroline Anne

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

**EPSY 3303 Educational Psychology Undergraduate Research Practicum**

**A-F only, 3 credit(s), max credits 6; prereq 3264, minor in applied psychology for educational/community settings;**

**Instructor:** McComas, Jennifer

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

**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 the writing in the evaluation of student performance. The midterm and final examinations will consist of short answer essay questions. Students will learn prior to the examinations the essay questions to be used in them. Each student will complete brief reviews of ten text chapters and critical reviews of one scholarly article, with both text chapters and articles to be selected by the student. Each student will receive corrective feedback on a draft of a portion of the term paper prior to the completion of the term paper assignment. Each student will also make a class presentation on one of the scholarly articles. The course will be “Web Enhanced.”

**Style:** 40% Lecture, 30% Discussion. presentaitons; web enhanced course (URL not yet available)

**Grading:** 10% mid exam, 20% final exam, 50% reports/papers, 10% in-class presentation, 10% class participation

**Exam Format:** short essay

**EPSY 5112 Knowing, Learning, and Thinking**

**A-F only, 4 credit(s);**

**Instructor:** Tennyson, Robert D

**Description:** This course provides an introduction to the theory and practice of psychology in regards to the concepts of knowing, learning, and thinking. The overriding theme is the influence of psychological theories dealing with human cognition, with a focus on both historical and contemporary views and issues. The goal is to help the student acquire knowledge of learning theories and their applications. Objectives To acquire knowledge of educational foundations in learning philosophies and theories. Including the major theories of behaviorism, cognitive psychology, and constructivism. To develop an understanding of the application of learning theory to improvements in learning. To apply learning philosophy and theory to a self-defined learning environment. Requirements 1. Student Worksheets. To help students in applying information learned in an instructional sessions, student worksheets will be done directly during class. 15% of the final grade. 2. Statement of Learning Philosophy and Theory. The second is a written statement that includes both your philosophy of learning and theory of learning. Each student will make a presentation of his or her report during the last week of class. 30% of the final grade. 3. Selected Key Persons and Concepts. Preparation of a written definition of selected key persons and concepts in educational psychology. Students will present the concepts to the class with accompanying examples. 20% of final grade.

**Style:** 40% Lecture. 30% Discussion. student presentations

**Grading:** 20% final exam, 30% reports/papers, 15% special projects, 15% in-class presentation, 20% problem solving.

**Exam Format:** The final is a two-part examination: an oral presentation of his or her learning philosophy/theory. 15% of the final grade; a written exam of Key Persons and Key Concepts. 20% of the grade.

**EPSY 5113 Psychology of Instruction and Technology**

**3 credit(s);**

**Instructor:** Tennyson, Robert D

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

**EPSY 5151 Cooperative Learning**

**3 credit(s);**

**Instructor:** Johnson, Roger T

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

**EPSY 5200 Special Topics: Psychological Foundations: Survey Data Analysis**

**1 credit(s), max credits 30, 30 repeats allowed;**

**Instructor:** Rodriguez, Michael C.

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

**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 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.

**Style:** 10% Lecture, 60% Discussion. Independent learning activities

**Grading:** 22% final exam, 21% reports/papers, 22% quizzes, 23% class participation, 12% other evaluation.

**Exam Format:** multiple choice, true/false, short-answer

**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.

**Style:** 20% Lecture, 50% Discussion, 30% Small Group Activities. Independent learning activities

**Grading:** 28% final exam, 28% reports/papers, 34% quizzes, 10% class participation.

**Exam Format:** Short answer, multiple-choice

**EPSY 5271 Becoming a Teacher of Statistics**
3 credit(s); prereq 5261 or equiv;
**Instructor:** Everson, Michelle G

**Description:** Students taking EPSY 5271 will: (1) Become knowledgeable about current recommendations for teaching introductory statistics at the college level, (2) Learn about the different types of first courses in statistics (e.g., Advanced Placement High School Statistics, Introductory College statistics, Mathematics statistics, and Statistical Literacy courses) and what the key commonalities and differences are between these courses, (3) Read articles by leaders in the national and international statistics community about goals for student learning, the nature of statistical reasoning and thinking, and recommended methods for teaching, (4) Gain experience using state of the art technological tools including statistical software, web applets, and simulation/sampling to help students learn statistics, (5) Learn about appropriate ways to assess student learning via performance assessment, student projects, and other assessment formats, (6) Experience and learn about many activities that help students develop understanding of important statistical ideas, and (7) Complete a project that includes the design of a lesson for a course they plan to teach, incorporating the guidelines, materials and methods learned in this class.

**Style:** 5% Lecture, 40% Discussion, 40% Small Group Activities, 15% Student Presentation.

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

**EPSY 5451 College Students Today**
3 credit(s); Credit will not be granted if credit has been received for: EDPA 5704;
**Instructor:** Ropers-Hullman, Rebecca Lynn

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

**EPSY 5604 Transition From School to Work and Community Living for Persons With Special Needs**
3 credit(s);
**Instructor:** Peper, Christine Rae

**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 5752 Student Teaching: Learning Disabilities
S-N only, 1-6 credit(s), max credits 10, 10 repeats allowed; prerequisite instruction
Instructor: Seifert, Kathy
Description: Student may contact the instructor or department for information.

EPSY 5754 Student Teaching: Social and Emotional Disabilities
A-F only, 1-6 credit(s), max credits 8, 8 repeats allowed; prerequisite completion of licensure courses for social and emotional disorders, instructor 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; prerequisite completion of all licensure coursework, instructor consent
Instructor: Seifert, Kathy
Description: Student may contact the instructor or department for information.

EPSY 5756 Student Teaching: Developmental Disabilities, Moderate/Severe
A-F only, 1-6 credit(s), max credits 6; prerequisite completion of all licensure coursework, instructor consent
Instructor: Seifert, Kathy
Description: Student may contact the instructor or department for information.

EPSY 5991 Independent Study in Educational Psychology
A-F only, 1-8 credit(s), max credits 20, 20 repeats allowed; prerequisite instructor consent
Instructor: STAFF
Description: Student may contact the instructor or department for information.

EPSY 8117 Writing Empirical Paper and Research/Grant Proposals in Education and Psychology
3 credit(s); prerequisite instruction
Instructor: Landl, Nicole
Description: Student may contact the instructor or department for information.

EPSY 8132 Personality Development and Socialization
3 credit(s); prerequisite personality or child psych course
Instructor: Burke, Caroline Anne
Description: Student may contact the instructor or department for information.

EPSY 8216 Seminar: Research Processes in Psychological Foundations of Education
A-F only, 3 credit(s); prerequisite [5216, admitted to doctoral program in psych foundations] or instructor consent
Instructor: Tennyson, Robert D
Description: Student may contact the instructor or department for information.

EPSY 8221 Psychological Scaling
3 credit(s); prerequisite 5221 or equivalent, 8261-8262 or equivalent
Instructor: Davison, Mark L
Description: Student may contact the instructor or department for information.

EPSY 8247 Advanced Interviewing and NVIVO
3 credit(s); prerequisite 5247 or qualitative course or instructor consent
Instructor: Lawrenz, Frances P
Description: Student may contact the instructor or department for information.

EPSY 8261 Statistical Methods I: Probability and Inference
3 credit(s); prerequisite 3264 or 5261 or equivalent
Instructor: Zieffler, Andrew S
Description: Student may contact the instructor or department for information.

EPSY 8262 Statistical Methods II: Regression and the General Linear Model
3 credit(s); prerequisite [8260, 8261] or equivalent
Instructor: delMas, Robert Claude
Description: EPSY 8262 is the second course of the Ph.D. level statistics sequence in Educational Psychology. The course will cover a number of advanced statistical methods. Emphasis will be placed on viewing traditional statistical methods as special cases of multiple regression, which itself is a special case of the general linear model (GLM). There are four major topic sections in this course: Regression, ANOVA, ANCOVA, and Repeated Measures. It is assumed that the student has facility with high school-level algebra. It is also assumed that the student has taken EPSY 8261 or an equivalent covering the topics of descriptive statistics and graphs, basic sampling and hypothesis testing, two-group mean comparison, simple analysis of variance (ANOVA), multiple comparison procedures, and some bivariate regression and correlation. The topics of bivariate regression, correlation, and simple ANOVA will be reviewed. Students wishing a more thorough review of these topics should consult the appropriate chapters of the textbook (Howell, 2007). Style: 60% Lecture, 40% Demonstration. Examples of how to use statistical software to perform analyses are used throughout each class session. Conceptual understanding is also promoted through the use of statistical software and simulations. Grading: 25% written homework, 75% additional semester exams. The 8 lab assignments allow the student to practice and receive feedback. Together, the labs constitute 25% of the final grade. 75% of the student's final grade is based on the three course exams. Exam Format: All 3 exams are take-home. Each exam involves the application of statistical concepts and procedures to analyze a data set. Each exam is posted at least one week before the due date.

EPSY 8262 Statistical Methods II: Regression and the General Linear Model
3 credit(s); prerequisite [8260, 8261] or equivalent
Instructor: Long, Jeffrey D
Description: Student may contact the instructor or department for information.

EPSY 8265 Factor Analysis
3 credit(s); prerequisite 8262 or instructor consent
Instructor: Davenport Jr., Ernest C
Description: Student may contact the instructor or department for information.

EPSY 8267 Applied Multivariate Analysis
3 credit(s); prerequisite [8261, 8262] or equivalent, familiarity with matrix algebra, knowledge of a computerized statistics package
Instructor: Davenport Jr., Ernest C
Description: Student may contact the instructor or department for information.

EPSY 8269 Matrix Algebra for Statistical Modeling
2 credit(s); prerequisite 8262 or equivalent
Instructor: Rodriguez, Michael C
Description: Student may contact the instructor or department for information.

EPSY 8290 Special Topics: Seminar in Psychological Foundations: Statistical Analysis of Longitudinal Data II
1-6 credit(s), max credits 15, 15 repeats allowed; prerequisite instructor consent
Instructor: Long, Jeffrey D
Description: Student may contact the instructor or department for information.

EPSY 8295 Evaluation Problems
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1-6 credit(s), max credits 24, 24 repeats 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 repeats 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 8403 Social/Cultural Contexts: Counseling and Skills
A-F only, 3 credit(s); prereq Grad ed psy major with CSPP subprog or instr consent;
Instructor: Goh, Michael Pik-Bien
Description: Student may contact the instructor or department for information.

EPSY 8407 Assessing and Counseling Clients With Psychological Disorders
A-F only, 4 credit(s); prereq CSPP Ph D or MA student or instr consent;
Instructor: Burke, Caroline Anne
Description: Student may contact the instructor or department for information.

EPSY 8411 Advanced Counseling Research
A-F only, 4 credit(s); prereq Ed psy PhD student with CSPP subprog or instr consent;
Instructor: Hummel, Thomas J
Description: Student may contact the instructor or department for information.

EPSY 8413 Personality Assessment of Adolescents and Adults
A-F only, 3 credit(s); prereq [Psy 5604H or Psy 8111 or Psy 8112], doctoral student, instr consent;
Instructor: Turner, Sherri L
Description: Student may contact the instructor or department for information.

EPSY 8431 Master’s Research Seminar: CSPP
A-F only, 4 credit(s); prereq 5261 or equiv, 5221 or equiv, EPsy MA student with CSPP subprog or instr consent;
Instructor: Hummel, Thomas J
Description: Student may contact the instructor or department for information.

EPSY 8435 Organization of School Counseling Comprehensive Programs
A-F only, 3-6 credit(s), max credits 6; prereq CSPP grad student in school counselor prog or instr consent;
Instructor: Wahl, Kay Herting
Description: Student may contact the instructor or department for information.

EPSY 8504 Counseling Practicum II
A-F only, 1-4 credit(s), max credits 4, 1 repeat allowed; prereq 8503 or instr consent;
Instructor: Skovholt, Thomas M
Description: Student may contact the instructor or department for information.

EPSY 8504 Counseling Practicum II
A-F only, 1-4 credit(s), max credits 4, 1 repeat allowed; prereq 8503 or instr consent;
Instructor: Wahl, Kay Herting
Description: Student may contact the instructor or department for information.

EPSY 8504 Counseling Practicum II
A-F only, 1-4 credit(s), max credits 4, 1 repeat allowed; prereq 8503 or instr consent;
Instructor: Burke, Caroline Anne
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 repeats allowed; prereq EdPsy PhD student with CSPP subprog;
Instructor: Goh, Michael Pik-Bien
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 repeats allowed; prereq [Grad EPsy PhD student with CSPP subprog] or instr consent; instructor consent required after 2 repeats;
Instructor: Skovholt, Thomas M
Description: Student may contact the instructor or department for information.

EPSY 8706 Single Case Designs in Intervention Research
3 credit(s);
Instructor: Symons, Frank J
Description: Student may contact the instructor or department for information.

EPSY 8822 Research in School Psychology
A-F only, 3 credit(s), max credits 6; prereq [[]8860, 8861, 5616] or equiv], grad ed psy major with school psy subprog] or instr consent;
Instructor: Ysseldyke, James E
Description: Student may contact the instructor or department for information.

EPSY 8823 Ethics and Professional Standards in School Psychology
A-F only, 3 credit(s); prereq 8821;
Instructor: Ysseldyke, James E
Description: Student may contact the instructor or department for information.

EPSY 8905 History and Systems of Psychology: Landmark Issues in Educational Psychology
3 credit(s); prereq Ed psy PhD student;
Instructor: Samuels, S Jay
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:

This information is accurate as of 6/9/2008 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.
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 301 Introduction to Digital System Design: Discussion
No Grade, 0 credit(s); prereq concurrent registration in 2301; Instructor: Riedel,Marc
Description: Student may contact the instructor or department for information.

EE 361 Introduction to Microcontrollers: Discussion
S-N only, 0 credit(s); prereq concurrent registration in 2361; Instructor: Rennoet,Charles Leon
Description: Student may contact the instructor or department for information.

EE 1001 Introduction to Electrical and Computer Engineering
S-N only, 1 credit(s); prereq lower div IT or dept consent;
Instructor: Imbertson,Paul Jay
Description: Student may contact the instructor or department for information.

EE 1301 Introduction to Computing Systems
4 credit(s); prereq MATH 1271 or MATH 1371;
Instructor: Bazargan,Kia
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: Jacobs,Heinrich Otto Heiko
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: Jacobs,Heinrich Otto Heiko
Description: Student may contact the instructor or department for information.

EE 2006 Introductory Circuits Laboratory
0.5 credit(s);
Instructor: Jacobs,Heinrich Otto Heiko
Description: Student may contact the instructor or department for information.

EE 2011 Linear Systems and Circuits
3 credit(s); prereq 2001;
Instructor: Gopinath,Anand
Description: Student may contact the instructor or department for information.

EE 2301 Introduction to Digital System Design
4 credit(s); prereq Math [1272 or 1372 or 1572], concurrent registration in 0301;
Instructor: Riedel,Marc
Description: Student may contact the instructor or department for information.

EE 2361 Introduction to Microcontrollers
4 credit(s); prereq [1301 or CSCI 1113 or [2301, CSCI 1901]], Concurrent registration is required (or allowed) in 0361;
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: Mahmoodi PhD,Abolghassem B
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: Mahmoodi PhD,Abolghassem B
Description: Student may contact the instructor or department for information.

EE 3015 Signals and Systems
3 credit(s); prereq [2011, IT] or dept consent;
Instructor: Ebbini,Emad S
Description: Student may contact the instructor or department for information.

EE 3025 Statistical Methods in Electrical and Computer Engineering
3 credit(s); prereq [3015, IT] or instr approval;
Instructor: Kieffer,John C
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 3101 Circuits and Electronics Laboratory I
2 credit(s); prereq [2002, [3115 or Concurrent registration is required (or allowed) in 3115], IT] or dept consent ;
Instructor: Kinney,Larry L
Description: Student may contact the instructor or department for information.

EE 3102 Circuits and Electronics Laboratory II
2 credit(s); prereq [3101 or IT or dept consent ], attendance first day of class;
Instructor: Higman,Ted King
Description: 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: Higman,Ted King
Description: Student may contact the instructor or department for information.

EE 3161 Semiconductor Devices
3 credit(s); prereq Upper div IT, 2011, Phys 1302, Phys 2303 or Chem 1022;
Instructor: Oh,Sang-Hyun
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 2572], [Phys 1302 or Phys 1402], IT] or dept consent ;
Instructor: Victor,Randall H
Description: Student may contact the instructor or department for information.

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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 4111 Advanced Analog Electronics Design
4 credit(s); prereq 3015, 3115;
Instructor: Georgiou, Tryphon T
Description: Student may contact the instructor or department for information.

EE 4233 State Space Control System Design
3 credit(s); prereq [3015, upper div IT] or instr consent; no EE or CompE grad cr;
Instructor: Jovanovic, Mihailo
Description: Student may contact the instructor or department for information.

EE 4237 State Space Control Laboratory
1 credit(s); prereq 4233 or concurrent enrollment in 4233; no cr for [EE or CompE] grad students;
Instructor: Georgiou, Tryphon T
Description: Style: 100% Laboratory.
Grading: 100% reports/papers.

EE 4341 Microprocessor and Microcontroller System Design
4 credit(s); prereq 2301, 2361, upper div IT; no EE or CompE grad cr;
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: Sapatnekar, Sashikant Suresh
Description: Student may contact the instructor or department for information.

EE 4398W Introduction to Empirical Inference and Soft Computing
3 credit(s); prereq [3025, ECE student] or STAT 3022; computer programming or MATLAB or similar environment is recommended for ECE students; Meets CLE req of Writing Intensive;
Instructor: Cherkassky, Vladimir S
Description: EE 4398W SPRING 2008 INTRODUCTION TO EMPIRICAL INFERENCE AND SOFT COMPUTING Instructor Vladimir Cherkassky EE/CSci 6-111; 612-625-9597; cherkass@ece.umn.edu Office Hours: Tue Thur - 11:15-12 and Thur3? 4 pm Lecture time and place Tue Thur, 9:45 to 11:00am, AmundH 156 Prerequisites EE 3025 for ECE students, or Stat 3022 for non-ECE majors. Working knowledge of concepts in probability theory (i.e., random variable, distribution, mean and st. deviation). Familiarity with computer programming using computer system of your choice for homework assignments. MATLAB or similar environment is recommended (for ECE students) but not required. Course Material Lecture notes + book chapters + selected papers (will be posted on the web page) (see ECE department homepage.) Course Description Advances in computer and database technology motivate the need for methods for estimating dependencies (models) from the historical data. Often the common goal (of modeling) is to estimate a model providing good generalization, i.e. good prediction performance for future data. Such methods have been developed in various fields such as statistics, machine learning, neural networks, data mining etc. These diverse methodologies comprise an emerging field known as Empirical Inference or Predictive Learning, introduced in this course. The course covers three inter-related parts: 1. Technical Part deals with fundamental concepts and principles important for learning (generalization) from data. These issues are addressed by the mathematical theory known as Statistical Learning Theory (aka VC-theory), introduced in this course. 2. Practical Part focuses on constructive learning methods and applications. Representative learning methods include several statistical learning methods developed in machine learning, statistics and neural networks. These methods include Decision Trees, MultiLayer Perceptrons, Self-Organizing Maps, Support Vector Machines and Boosting. Various learning methods are illustrated via practical data mining applications, such as object recognition, financial engineering, genomics, signal denoising, text retrieval etc. 3. Philosophical Part explores the connection between mathematical principles established in Part 1, and the Philosophy of Science, which is concerned with general conditions for judging the validity (truthfulness) of inductive scientific theories. Similarly, the fundamental principles of inference from data (developed in Part 1) underlying practical data mining algorithms (in Part 2) will be also related to mechanisms of human learning and intelligence. Grading: 6 Homework assignments 50% 3 writing assignments 30% Midterm exam 20% There will be no final exam. All tests are open-book, open-notes.

EE 4541 Digital Signal Processing
3 credit(s); prereq [3015, 3025] or instr consent;
Instructor: Ottesen, Hal
Description: Student may contact the instructor or department for information.

EE 4607 Wireless Hardware System Design
3 credit(s); prereq [3015, 3115, 3601, IT student] or dept consent;
Instructor: Gopinath, Anand
Description: Student may contact the instructor or department for information.

EE 4609 Digital Signal Integrity
3 credit(s); prereq 2011, Phys 1301, 1302, [or EE or CompE major]; Credit will not be granted if credit has been received for: EE 5609;
Instructor: Sainati, Robert A
Description: Student may contact the instructor or department for information.

EE 4701 Electric Drives
3 credit(s), max credits 4, 1 repeat allowed; prereq 3015;
Instructor: Imbertson, Paul Jay
Description: Electric motors, motor drives, and control systems, using readily understandable Space-Vector teaching methods. Topics include: Rotational Mechanics; Magnetism; Power Electronic Drives; DC Motors; Permanent-Magnet Motors; Synchronous Motors; Induction Motors; and Motor Control.

EE 4703 Electric Drives Laboratory
1 credit(s); prereq 4701 or Concurrent registration is required (or allowed) in 4701;
Instructor: Imbertson, Paul Jay
Description: Student may contact the instructor or department for information.

EE 4940 Special Topics in Electrical and Computer Engineering
1-4 credit(s), max credits 8; prereq IT or instr consent;
Instructor: Cohen, Philip I
Description: Student may contact the instructor or department for information.

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: Imbertson, Paul Jay
Description: Student may contact the instructor or department for information.

**EE 4970 Directed Study**
1-3 credit(s), max credits 3; prereq Cr or [may be repeated for cr]; dept consent;
Instructor: STAFF
Description: Studies of approved projects, either theoretical or experimental.

**EE 5141 Introduction to Microsystem Technology**
4 credit(s); prereq [3161, 3601, IT grad student] or dept consent;
Instructor: Talghader, Joseph John
Description: Student may contact the instructor or department for information.

**EE 5821 Biological System Modeling and Analysis**
3 credit(s); prereq IT grad student or life science grad student or dept consent;
Instructor: Holle, James 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 repeats allowed;
prereq Grad student, instr consent;
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 repeats allowed;
prereq Grad student, instr consent;
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Rennolet, 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 repeats allowed;
prereq Grad student, instr consent;
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 repeats allowed;
prereq Grad student, instr consent;
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Sapirio, 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 repeats allowed;
prereq 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 repeats allowed;
prereq 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 repeats allowed;
prereq 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 repeats allowed;
prereq 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 repeats allowed;
prereq 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 repeats allowed;
prereq 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 repeats allowed;
prereq 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 repeats allowed;
prereq 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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Georgiou, Tryphon T
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Stadler, Bethanie J. Hills
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Higman, Ted King
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Kaveh, Mostafa
Description: Student may contact the instructor or department for information.
for information.

EE 5990 Curricular Practical Training
S-N only, 1-2 credit(s), max credits 6, 3 repeats allowed;
prereq Grad student, instr consent;
Instructor: Lilja,David J
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Mohan,Ned
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Talghader,Joseph John
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Cherkassky,Vladimir 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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Holte,James 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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Campbell,Stephen A
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Hubel,Allison
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Kieffer,John C
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Soibelman,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 repeats 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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Drayton,RF
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 repeats 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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Victora,Randall 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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Giannakis,Georgios B
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Bazargan,Kia
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Roychowdhury,Jaijeet
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Jacobs,Heinrich Otto Heiko
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Roumeliotis,Stergios
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Wang,Jianping
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Amin,Massoud
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 repeats allowed;
prereq Grad student, instr consent;
Instructor: Roychowdhury,Jaijeet
Description: Student may contact the instructor or department for information.
S-N only, 1-2 credit(s), max credits 6, 3 repeats allowed; prereq Grad student, instr consent; Instructor: Luo, Zhi-Quan
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 repeats allowed; prereq Grad student, instr consent; Instructor: He, PhD Bin
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 repeats 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 repeats allowed; prereq Grad student, instr consent; Instructor: Kim, Chris H
Description: Student may contact the instructor or department for information.

EE 8370 Computer Aided Design Seminar
S-N only, 1 credit(s), max credits 3, 3 repeats allowed; prereq [EE or CompE or CSci] grad major, 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 repeat 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 repeat 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 repeat 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 repeat allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent; Instructor: Ottesen, Hal
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 repeat 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 repeat 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 repeat 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 repeat 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 repeat allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent; Instructor: Wang, Janping
Description: Student may contact the instructor or department for information.
EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 repeat 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 repeat allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent; Instructor: Moon, Jae-yun
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 repeat 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 repeat 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 repeat 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 repeat 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 repeat 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 repeat 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 repeat 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 repeat 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 repeat 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 repeat 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 repeat 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 repeat 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 repeat allowed; prereq 1-3 cr [may be repeated for cr]; IT grad student or instr consent; Instructor: Cherkassky, Vladimir S
Description: Student may contact the instructor or department for information.

EE 8940 Special Investigations
1-3 credit(s), max credits 3, 1 repeat 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 repeat 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 repeat 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 repeat 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 repeat 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 repeat 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.
<table>
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<tr>
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<td>EE 8940</td>
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<td>Otto Heiko</td>
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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
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Instructor: Mounes-Toussi, Farnaz
Description: Student may contact the instructor or department for information.

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Instructor: Renneot, Charles Leon
Description: Student may contact the instructor or department for information.

EE 8965 Plan C Project I
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EE 8965 Plan C Project I
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Instructor: Sapatnekar, Sachin Suresh
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Instructor: Moon, Jaekyun
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EE 8965 Plan C Project I
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EE 8965 Plan C Project I
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EE 8965 Plan C Project I
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Instructor: Cherkasovsky, 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: Holte, James 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: Campbell, Stephen A
Description: Student may contact the instructor or department for information.
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<td>EE 8965 Plan C Project I</td>
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<td>Amin, Massoud</td>
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EE 8967 Plan C Project II
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Instructor: Campbell, Stephen A
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 repeat allowed; prereq EE grad student;
Instructor: Hubel, Allison
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 repeat allowed; prereq EE grad student;
Instructor: Kieffer, John C
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 repeat allowed; prereq EE grad student;
Instructor: Kinney, Larry L
Description: Student may contact the instructor or department for information.

EE 8967 Plan C Project II
1-3 credit(s), max credits 3, 1 repeat allowed; prereq EE grad student;
Instructor: Kiehl, Richard
Description: Student may contact the instructor or department for information.
EHS 3312 Emergency Medical Technician
1-3 credit(s), max credits 3, 1 repeat allowed; prereq EE grad student;
Instructor: Yoon,Eulisik
Description: This course is designed as an "on the job" paid or volunteer experience with an EMS transport service or emergency department. Individuals arrange for 1-3 credits of experience. Available to students who have completed EHS 3312/EMT. It is the student's responsibility to arrange volunteer or paid position for this practicum. Approximately 60% of the course work should be clinical performance, 20% self-reflective journal and research, and 20% scholarly work. Class consists of didactic presentations, 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.
Grading: 15% mid exam, 15% final exam, 20% quizzes, 10% attendance, 10% class participation, 30% other evaluation. Students will be accessed 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 4999 Practicum
A-F only, 1-3 credit(s), max credits 9, 3 repeats allowed; prereq EHS;
Instructor: Mc Neil MA,Mary Ann
Description: This course is designed as an "on the job" paid or volunteer experience with an EMS transport service or emergency department. Individuals arrange for 1-3 credits of experience. Available to students who have completed EHS 3312/EMT. It is the student's responsibility to arrange volunteer or paid position for this practicum. Approximately 60% of the course work should be clinical performance, 20% self-reflective journal and research, and 20% scholarly work. Class consists of didactic presentations, 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.
Grading: 25% reports/papers, 25% journal, 50% other evaluation. Student will receive an evaluation of performance from the site where they work/volunteer.
Exam Format: There is no formal didactic exam.
S-N only, 1 credit(s), max credits 2, 1 repeat allowed;
Instructor: Edmunds, Robert Sprague
Description: Student may contact the instructor or department for information.

ENDO 8005 Research in Endodontics
1-2 credit(s), max credits 2, 1 repeat allowed; prereq dept consent;
Instructor: Bowles, Walter Ray
Description: Student may contact the instructor or department for information.

ENDO 8313 Literature Review
A-F only, 2 credit(s); prereq 8312;
Instructor: Baisden, Michael Kenneth
Description: Student may contact the instructor or department for information.

ENDO 8323 Advanced Endodontic Lecture
A-F only, 1 credit(s); prereq 8322;
Instructor: Bowles, Walter Ray
Description: Student may contact the instructor or department for information.

ESL 111 Beginning Grammar
S-N only, 0 credit(s), 4 repeats allowed; prereq Nonnative English speaker;
Instructor: STAFF
Description: Students learn basic grammatical structures. The course focuses on increasingly complex structures with attention to form, meaning, and use. Students practice structures in controlled speaking and writing activities.
Style: 20% Lecture, 70% Discussion, 10% Laboratory.
Grading: 25% quizzes, 10% class participation, 10% laboratory evaluation, 55% other evaluation.
Exam Format: Short answer

ESL 121 Beginning Reading and Composition
S-N only, 0 credit(s), 4 repeats allowed; prereq Nonnative English speaker;
Instructor: STAFF
Description: Students learn to read passages of limited difficulty, focusing on main ideas, vocabulary development, reading speed, and skimming and scanning skills. Writing focuses on the fundamentals of spelling, punctuation, sentences and organization. Writing exercises and free writing are used.
Style: 10% Lecture, 50% Discussion. Conferencing with instructor, class work
Grading: 50% reports/papers, 10% special projects, 10% quizzes, 10% class participation, 15% laboratory evaluation.
Exam Format: Short answer

ESL 411 Intermediate Grammar
S-N only, 0 credit(s), 4 repeats allowed; prereq Non-native speaker of English;
Instructor: STAFF
Description: Students review and add to their skills with basic structures. The course focuses on increasingly complex structures with attention to form, meaning and use, especially with regard to verb phrases. Students practice structures in controlled speaking and writing activities.
Style: 20% Lecture, 70% Discussion, 10% Laboratory.
Grading: 30% quizzes, 15% class participation, 10% laboratory evaluation, 45% other evaluation.
Exam Format: Short answer

ESL 421 Intermediate Reading and Composition
S-N only, 0 credit(s), 4 repeats allowed; prereq Nonnative English speaker;
Instructor: STAFF
Description: Students read for main ideas and supporting ideas with increased speed. Vocabulary is developed through the study of word formation and use of the dictionary. Writing includes fundamentals, organization, and writing as a process.
Style: 15% Lecture, 45% Discussion, 10% Laboratory. Small group work
Grading: 50% reports/papers, 10% special projects, 10% quizzes, 15% class participation, 10% laboratory evaluation.
Exam Format: Variety

ESL 431 Intermediate Oral Skills
S-N only, 0 credit(s), 4 repeats allowed; prereq Nonnative English speaker;
Instructor: STAFF
Description: This course focuses on developing fluency and accuracy, language for specific functions, communication strategies, standard forms of organization for academic lectures, and understanding natural conversational speech.
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 600 Business English
S-N only, 0 credit(s); prereq Non-native speaker of English; see Minnesota English Language Program;
Instructor: STAFF
Description: An advanced course for students who want to improve their communication in a business setting. The class focuses on English as it is used in international trade, finance, and marketing. Students practice listening and speaking skills (including voicemail), read and discuss business materials, and practice writing e-mail and business letters.

ESL 611 Advanced Grammar
S-N only, 0 credit(s); prereq Nonnative English speaker;
Instructor: STAFF
Description: This course focuses on difficult areas of grammar and on providing the resources to work with them. Meaning, use, and form are emphasized with increased emphasis on complex sentence patterns.
Style: 20% Lecture, 70% Discussion, 10% Laboratory.
Grading: 20% final exam, 25% quizzes, 5% laboratory evaluation, 50% other evaluation.
Exam Format: Variety of formats.

ESL 621 Advanced Reading Composition: The Written Word
S-N only, 0 credit(s), 4 repeats allowed; prereq Nonnative English speaker;
Instructor: STAFF
Description: Students focus on reading efficiency, including strategy development, as well as vocabulary skill building. Some focus is on using reading to support academic writing.
Style: 25% Lecture, 50% Discussion. In class work time, conferencing with instructor.
Grading: 50% reports/papers, 10% special projects, 15% quizzes, 25% class participation.
Exam Format: Multiple choice & essay

ESL 711 Grammar Through Writing
S-N only, 0 credit(s), 4 repeats allowed; prereq Non-native speaker of English;
Instructor: STAFF
Description: This course focuses on production of grammatically sophisticated structures in writing. Students edit their assignments.
Style: 25% Lecture, 65% Discussion, 10% Laboratory.
Grading: 15% final exam, 25% reports/papers, 25% quizzes, 35% other evaluation.
Exam Format: Variety

ESL 721 High Advanced Reading/Composition
S-N only, 0 credit(s), 4 repeats allowed; prereq Non-native speaker of English;
Instructor: STAFF
Description: Students work on reading for academic purposes.
In reading, the course focuses on comprehension of scholarly reading selections and on increasing reading efficiency. In writing, this course focuses on the writing process and academic-style assignments.

**Style:** 25% Lecture, 50% Discussion. In-class writings, conferencing with the instructor

**Grading:** 60% reports/papers, 20% quizzes, 20% class participation.

**Exam Format:** Variety

**E&L 3201 Advanced English Reading and Composition**

5 credit(s), max credits 10; prereq Non-native speaker of English, [C-TOEFL score of 153-187 or equiv], dept consent;

**Instructor:** STAFF

**Description:** In this course you will read articles on topics ranging from cross-cultural differences to women serving in the military. You will improve your ability to understand and discuss articles and to write and revise papers related to what you have read. In addition to informal writing, such as journals, you will write two papers that will help you improve your control of all phases of writing: idea-gathering, planning, drafting, revising, and editing.

**ENGL 1201W Contemporary American Literature**

4 credit(s); Credit will not be granted if credit has been received for: ENGL 1201V; Meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive;

**Instructor:** STAFF

**Description:** This writing intensive course for undergraduate students will introduce you to a variety of American experiences as they are represented in different literary genres and across a period spanning from the Civil War to the present day. Because we will focus on the basics of writing literary analysis (What is a “close reading”? What is the difference between a narrator and an author?), our treatment of American literary history will not be comprehensive. Instead we will consider broad topics like identity, place, and history and discuss several plays, poems and stories in the context of these topics. We will read authors like Russell Banks, Gwendolyn Brooks, Arthur Miller, Toni Morrison, Allen Tate, Mark TWain, and Wendy Wasserstein, among others.

**ENGL 1401W Introduction to “Third World” Literatures in English**

4 credit(s); Credit will not be granted if credit has been received for: ENGL 1401V; Meets CLE req of International Perspect Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive;

**Instructor:** STAFF

**Description:** Colonialism, emigration, economics, war, famine, and slavery have worked in combination to make English a language spoken in almost every region of the world. The legacy of these forces is an international Anglphone literature that addresses issues such as displacement and difference, representation, poverty, nationalism, syncretism, and the fight for freedom. The voices that speak to these issues are varied and impressive and students will engage closely and critically with the texts of multiple genres from Anglophone Africa, South Asia, and the Caribbean, discovering how the tools of oppression can be used strategically to dismantle the “master”‘s house and build other houses in its stead. This course will introduce questions raised by the interaction of the “First?” and “Third?” worlds and create, inevitably, questions about history, politics, social science, and how language operates in the so-called “Third World.”

**ENGL 1501W Literature of Public Life**

A-F only, 4 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Literature Core; 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 1701V Modern Fiction**

4 credit(s); Meets CLE req of Literature Core; Meets CLE req of Writing Intensive;

**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 3001W Textual Analysis: Methods**

A-F only, 4 credit(s); prereq honors student, [English Major or minor or approved BIS or IDIM program with English area]; Credit will not be granted if credit has been received for: ENGL 3001V; Meets CLE req of Writing Intensive;

**Instructor:** Ismail,Qadri M

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

**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 has been received for: ENGL 3001V; Meets CLE req of Writing Intensive;

**Instructor:** Damon,Maria

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

**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 has been received for: ENGL 3001V; Meets CLE req of Writing Intensive;

**Instructor:** Farber,Lianna

**Description:** This class introduces students to basic techniques of literary analysis by presenting straightforward approaches to some of the most powerful forms of English literature. We begin with the poetry of the self, discussing questions to ask of such poems and looking at the ?quot;selfquot;? various poets present, the choices they make, and how they achieve their effects. We also think about what it might feel like to be that self through a number of light-hearted attempts at imitation. We turn next to Malory’s story of King Arthur and the knights of the round table to discuss narrative that is not concerned with character development. We look finally at changes in what we think of as “American” literature by examining Shakespeare’s Romeo and Juliet and Norman and Stoppard’s Shakespeare in Love.

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

This information is accurate as of 6/9/2008 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 3002 Modern Literary Criticism and Theory
3 credit(s); Credit will not be granted if credit has been received for: ENGL 3002H;
Instructor: Craig, Siobhan S
Description: This course will focus on literary and cultural theory. Students will be encouraged to engage actively with a variety of theorists from different historical periods and questions which have engaged a variety of theorists. These areas include: reading, writing and rupture; knowledge and epistemology; desire, performance and subjectivity; race, gender and hegemony. Writers to be considered may include, among others: Barthes; Derrida; DeMan; Foucault; Benjamin; Freud; Lacan; Kristeva; Said; Fanon; Spivak; Sedgwick; Halberstam; Haraway; Butler.
Style: 25% Lecture, 75% Discussion.
Grading: 80% reports/papers, 10% in-class presentation, 10% class participation.

ENGL 3002 Modern Literary Criticism and Theory
3 credit(s); Credit will not be granted if credit has been received for: ENGL 3002H;
Instructor: Brown, Tony C.
Description: Student may contact the instructor or department for information.

ENGL 3003W Historical Survey of British Literatures I
4 credit(s); meets CLE req of Historical Perspective Core; 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 304W Historical Survey of British Literatures II
4 credit(s); Meets CLE req of Historical Perspective Core; meets CLE req of Writing Intensive;
Instructor: Goldberg, Brian B
Description: This course will provide a survey of British and postcolonial literature from the late eighteenth century to the present.
Grading: 20% mid exam, 20% final exam, 20% reports/papers, 20% other evaluation.

ENGL 3006W Survey of American Literatures and Cultures II
4 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive;
Instructor: Ch'ien Evelyn Nien-Ming
Schedule.

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**ENGL 3070 Studies in Literary and Cultural Modes**
3 credit(s), max credits 9, 3 repeats allowed;  
Instructor: Clayton, Tom  
Description: Student may contact the instructor or department for information.

**ENGL 3090 General Topics**
3 credit(s), max credits 12, 3 repeats allowed;  
Instructor: Knutson, April A  
Description: Student may contact the instructor or department for information.

**ENGL 3101 Survey of Medieval English Literature**  
A-F only, 3 credit(s);  
Instructor: Krug, Rebecca L  
Description: Student may contact the instructor or department for information.

**ENGL 3122 Shakespeare II: The Major Themes**
3 credit(s); prereq 3007 or instr consent credit will not be granted if credit received for: 3131;  
Instructor: Haley, David B  
Description: Shakespeare II-The Major Themes is for students who have taken one of the introductory courses (EngL 1181 or EngL 3007) and want to have another look at the way Shakespeare handles his favorite topics. Those include themes familiar to his Elizabethan audience, such as how the community treats outsiders, what the public role of women should be, how a traditional institution like monarchy survives rebellion and change. The society portrayed in the plays is based on loyal service rather than equality and the quest for a just social hierarchy permeates his comedies (e.g. A Midsummer Night's Dream) and romances (e.g. The Tempest) as well as tragedies like King Lear. The content of 3122 varies each time it is offered, but students will read at least eight plays and interpret them in class. In place of midterm exams, you'll take short (thirty-minute) tests requiring brief essays, and a term paper (2000 words) will replace the final. Class discussion will focus on Shakespeare's text, with the instructor providing any historical and theatrical background necessary for understanding what we read. Students are encouraged to try different approaches to Shakespeare. These can range from examining his sources to contrasting different performances, but every approach must be grounded in Shakespeare's text, which you're expected to quote and encouraged to partly memorize. Shakespeare II-The Major Themes is designed to help you find your own preferred style of talking about Shakespeare.  
Style: 33% Lecture, 67% Discussion.  
Grading: 40% reports/papers, 30% quizzes, 30% class participation.

**ENGL 3141 The Restoration and the Eighteenth Century**  
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: ENGL 5140;  
Instructor: Goldberg, Brian B  
Description: The period from 1660-1789 saw a number of crucial developments in British literary history: the rise of the novel, the invention of the Gothic as a literary mode, the production of some of the best satire written in English, the introduction of the sublime, the beautiful, and the picturesque as major aesthetic categories, and the writing and performance of some of Great Britain's most intriguing drama, to name conspicuous examples. Further, given the rise to prominence of commercial publication and of professional authorship and criticism during this period, it is not going too far to say that the machinery of modern literary culture was established at this time. English 3141/5140 will explore key literary developments of the period.

**ENGL 3222 American Novel From 1900**
3 credit(s);  
Instructor: Rabinowitz, Paula  
Description: America is a novel-it's new, it's complex, it contains a multiplicity of characters, voices, stories, regions and points of view. This course reads some of the BIG AMERICAN BOOKS of the twentieth century to try to figure out what this nation and its narration is all about. Hint: MONEY, SEX, RACE, BOOZE and so forth. Readings include: THE GOLDEN BOWL, THE HOUSE OF MIRTH, U.S.A., THE GIRL, MISS LONELYHEARTS, INVISIBLE MAN, TRIPMASTER MONKEY: HIS FAKE BOOK, OBASAN, ABSALOM, ABSALOM, MAUD MARTHA, and some selected pulp fiction.  
Style: 50% Lecture, 50% Discussion. Occasional film viewings.  
Grading: 15% mid exam, 75% reports/papers, 10% in-class presentation.  
Exam Format: essay

**ENGL 3350 Women Writers**
3 credit(s), max credits 9, 3 repeats allowed;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

**ENGL 3400 Post-Colonial Literatures**
3 credit(s), max credits 9, 3 repeats allowed;  
Instructor: Ismail, Qadri M  
Description: Student may contact the instructor or department for information.

**ENGL 3400 Post-Colonial Literatures**
3 credit(s), max credits 9, 3 repeats allowed;  
Instructor: Sugnet, Charles J  
Description: Student may contact the instructor or department for information.

**ENGL 3506 Learning Internships II**  
A-F only, 4 credit(s); prereq 3505 in preceding semester or instr consent;  
Instructor: Daigre, Eric Stephen  
Description: Student may contact the instructor or department for information.

**ENGL 3598W Introduction to African American Literature and Culture II**
4 credit(s); meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive;  
Instructor: Pate, Alexis D.  
Description: This course is a general introduction to basic issues in language structure and language use, with specific application to English, and occasional extension to other languages. The focus is on verbal systems, which are universally shared by all human cultures, whereas writing is a secondary, late development of speech patterns. First, we will highlight the universality of language by referring to the physiological/biological foundations of language, and the basic features that characterize language dynamics. The course is thereafter organized into two general sections: 1) A general examination and explanation of cognitive aspects of language, through concrete illustrations of its major components?specifically as they apply to English. Those components include: a) the structure of sounds (phonetics and phonology); b) the structure of words (morphology); c) the structure of sentences (syntax); d) the structure of meaning (semantics); and e) the structure of discourse in context (pragmatics). The process of native language acquisition is then presented as evidence for the fundamental concepts outlined above. 2) An overview of social and behavioral aspects of language. Contemporary language variation is examined from a sociolinguistic perspective. We study the correlation between linguistic components (as presented in the first part of the course), and external social variables, such as socio-economic status, ethnicity, gender, and age. Language variability is presented in the context of stylistic variation is examined from a sociolinguistic perspective. We study the correlation between linguistic components (as presented in the first part of the course), and external social variables, such as socio-economic status, ethnicity, gender, and age. Language variability is presented in the context of stylistic...
ENGL 3713 Editing for Publication
4 credit(s); prereq Soph or jr or 1st sem sr;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

ENGL 3741 Literacy and American Cultural Diversity
4 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme;
Instructor: Daigre, Eric Stephen
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,” consider and apply 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 as an artifact of the modern research university. Reading: literary texts, sociological and educational theory, literacy studies. 2 papers, 2 presentations.

ENGL 3883V Honors Thesis
A-F only, 1-4 credit(s), max credits 4, 4 repeats allowed;
prereq Honors candidacy in English, consent of English honors advisor; Meets CLE req of Writing Intensive;
Instructor: Atkinson, Beverly M
Description: This individually contracted course is required of English summa cum laude degree candidates. The resulting thesis (about 40 pages) may be analytical, theoretical, or creative. For complete information, students will read the relevant pages on -
Using a contract form available at the URL or in the English Undergraduate Studies Office, 227 Lind, students make arrangements with a professor no later than the term preceding their last two terms. (It is strongly recommended that they do so by midterm.) They can expect to spend two semesters to research, collect, discuss, create, write, revise and revise, and then to seek approval from the supervising professor and two additional readers. Students work somewhat independently, meet periodically with the professor, and attend the English honors thesis writers’ workshop as noted in the Class Schedule. It is recommended that they attend a thesis preparation and writing workshop offered by the GLA Honors advisers, consult with the English Honors adviser, and work closely with the professor. Students find it helpful to have a peer English honors student (in the workshop) serve as a discussant and reader during the process of developing ideas and writing. Class time: average 50 minutes every other week in workshop.
Style: discussion, Individual research, reading, writing.
One-to-one discussions with faculty advisor in addition to the workshop.
Grading: 100% reports/papers. Grade is based on the completed process, the thesis leading to the final paper and the discussions with the faculty advisor.

ENGL 3960W Senior Seminar
A-F only, 4 credit(s); prereq English major, [jr or sr], major adviser approval, dept consent; Meets CLE req of Writing Intensive;
Instructor: Garner, Shirley Nelson
Description: Student may contact the instructor or department for information.

ENGL 3960W Senior Seminar
A-F only, 4 credit(s); prereq English major, [jr or sr], major adviser approval, dept consent; Meets CLE req of Writing Intensive;
Instructor: Fitzgerald, Maria J
Description: Student may contact the instructor or department for information.

ENGL 3960W Senior Seminar
A-F only, 4 credit(s); prereq English major, [jr or sr], major adviser approval, dept consent; Meets CLE req of Writing Intensive;
Instructor: Griffin, Edward M
Description: Student may contact the instructor or department for information.

ENGL 3960W Senior Seminar
A-F only, 4 credit(s); prereq English major, [jr or sr], major adviser approval, dept consent; Meets CLE req of Writing Intensive;
Instructor: Gonzalez, Ramon
Description: Student may contact the instructor or department for information.

ENGL 3960W Senior Seminar
A-F only, 4 credit(s); prereq English major, [jr or sr], major adviser approval, dept consent; Meets CLE req of Writing Intensive;
Instructor: Scheil, Katherine West
Description: Student may contact the instructor or department for information.

ENGL 3960W Senior Seminar
A-F only, 4 credit(s); prereq English major, [jr or sr], major adviser approval, dept consent; Meets CLE req of Writing Intensive;
Instructor: Wright, Michelle M
Description: Student may contact the instructor or department for information.

ENGL 3993 Directed Reading/Study
1-8 credit(s), max credits 16; prereq instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

ENGL 4003 History of Literary Theory
A-F only, 3 credit(s);
Instructor: Farber, Lianna
Description: This course explores some of the major questions about literary theory that preoccupied important thinkers from antiquity through modernism by looking at how they posed and answered questions about language (how words mean), audience (to whom they mean) and the literary (how literary writing differs from other forms of writing). We will begin by examining how theorists thought that words bear meaning; when, for example, can words carry more than their literal meaning? Must they always carry more than their literal meaning? If and when they do carry “extra” meaning, how do we know what to understand? Next, we will look to questions of audience: who is the implied audience for literature? Is the implied audience necessarily male? Is the audience’s understanding of a work of literature the same as the author’s? how can the author manipulate understanding? What is the relationship between literature and rhetoric? Finally, we will explore these theorists’ understanding of what literature is and how it differs from other kinds of writing. Readings will include
works by Plato, Aristotle, Augustine, Christine de Pizan, Dante, Sidney, Behn, Wordsworth, Coleridge, Shelley, and Woolf.

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

**ENGL 4090 General Topics**

1-4 credit(s), max credits 12, 3 repeats allowed;
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 took his plots and more from 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, 10% 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 4152 Nineteenth Century British Novel**

A-F only, 3 credit(s);
Instructor: Hirsch, Gordon D

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

**ENGL 4603W World Englishes**

4 credit(s); prereq credit will not be granted if credit received for: 3603W; Meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive;
Instructor: Escure, Genevieve J

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

**ENGL 4722 Alphabet to Internet: History of Writing Technologies**

4 credit(s); prereq credit will not be granted if credit received for: 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, Facebook, and the most recent issue of Wired magazine.

**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.

**ENGL 5002 Introduction to Literary and Cultural Theory**

3 credit(s); prereq grad or instr consent;
Instructor: Brown, Tony C.

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

**ENGL 5090 Readings in Special Subjects**

3-4 credit(s), max credits 9, 3 repeats 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 5090 Readings in Special Subjects**

3-4 credit(s), max credits 9, 3 repeats allowed; prereq grad student or instr consent; Credit will not be granted if credit has been received for: ENGL 5100;
Instructor: Nowak, Mark A

**Description:** This course will examine various formations within cultural politics and contemporary poetics from 1917 to the present. Beginning in the mining and global extractive industries between the 1910s and the 1930s, we will analyze poetry by Langston Hughes and Muriel Rukeyser with particular attention to mobility/mobilization, technology, and transnationalism. Ourexamination of the revolutionary 1960s and 1970s will focus on both canonized (Gwendolyn Brooks) and student-movement-based (SDS/Weather Underground) poetics. This will be followed by a detailed examination of neoliberalism as both "creative destruction? (David Harvey) and "mobile technology? (Aihwa Ong), with particular attention to the poetry and poetics of its manifestations in the NAFTA and post-NAFTA eras; given the geographic range of the NAFTA agreement, our analyses of American poetry will address the border- and genre-crossing engagements of poetry in cultural-political-poetic works from Mexico (Subcomandante Marcos/EZLN, Heriberto Yezpe), the United States (Claudia Rankine, Mark Nowak), and Canada (Jeff Derksen & the Kootenay School of Writing, Dione Brand).

**ENGL 5140 Readings in 18th Century Literature and Culture**

3 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: ENGL 3141;
Instructor: Goldberg, Brian B

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

**ENGL 5150 Readings in 19th-Century Literature and Culture**

3 credit(s), max credits 9, 3 repeats allowed; prereq Grad student or instr consent credit will not be granted if credit received for: 5250;
Instructor: Ross Jr, Donald

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

**ENGL 5200 Readings in American Literature**

3 credit(s), max credits 9, 3 repeats allowed; prereq Grad student or instr consent credit will not be granted if credit received for: 5120;
Instructor: Griffin, Edward M

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

**ENGL 5992 Directed Readings, Study, or Research**

1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent, college consent;
Instructor: Clayton, Tom

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

**ENGL 5992 Directed Readings, Study, or Research**

1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent, college consent;
Instructor: Wright, John Samuel

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

**ENGL 5992 Directed Readings, Study, or Research**

1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent, college consent;
Instructor: Baxter, Charles Roger

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

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ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Sirc, Geoffrey Michael
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Treuer, David Robert
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Ismail, Qadri M
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Hancher, Michael
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Sugnet, Charles J
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Weinheimer, Joel Clyde
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Hancher, Andrew
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Elfenbein, Andrew
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Schumacher, Julie
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Escure, Genevieve J
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Mowitt, John W
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Luke, David B
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Messer-Davidow, Ellen
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Garner, Shirley Nelson
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Fitzgerald, Maria J
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Hamel, Patricia
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Browne, M D
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Sprengnether, Madelon M
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Luke, David B
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Luke, David B
Description: Student may contact the instructor or department for information.

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1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
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ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Luke, David B
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instruction, college consent
Instructor: Luke, David B
Description: Student may contact the instructor or department for information.
ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Goldberg,Brian B
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Krug,Rebecca L
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Craig,Siobhan S
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Cucullu,Lois B
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Gonzalez,Ramon
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Scandura,Jani
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Tinsley Omise'ke Natasha
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Brown,Tony C.
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Scheil,Katherine West
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Scheil,Andrew
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Scheil,Katherine West
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Ch'en,Evelyn Nien-Ming
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Brown,Tony C.
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Scheil,Katherine West
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Wright,Michele M
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Matar,Nabil I
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Ch'ien,Evelyn Nien-Ming
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Brown,Tony C.
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Scheil,Katherine West
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Tinsley Omise'ke Natasha
Description: Student may contact the instructor or department for information.

ENGL 5992 Directed Readings, Study, or Research
1-3 credit(s), max credits 45, 15 repeats allowed; prereq instr consent , college consent ;
Instructor: Brown,Tony C.
Description: Student may contact the instructor or department for information.
ENGL 8300 Seminar in American Minority Literature
3 credit(s), max credits 12, 4 repeats allowed; prereq Grad major or instr consent; Instructor: Griffin, Edward M
Description: Student may contact the instructor or department for information.

ENGL 8400 Seminar in Post-Colonial Literature, Culture, and Theory
3 credit(s), max credits 12, 4 repeats allowed; Instructor: Sugnet, Charles J
Description: Student may contact the instructor or department for information.

ENGL 8600 Seminar in Language, Rhetoric, Literacy, and Composition
3 credit(s), max credits 9, 3 repeats allowed; Instructor: Sirc, Geoffrey Michael
Description: Student may contact the instructor or department for information.

ENGL 8625 Dissertation Seminar: Preparing the Book List and Prospectus
2 credit(s); prereq Engl PhD student in [3rd or 4th yr], at least 12 cr completed; Instructor: Cucullu, Lois B
Description: Student may contact the instructor or department for information.

ENGL 8626 Dissertation Seminar: Writing the Dissertation
2 credit(s); prereq English PhD student, passed prelim exam; Instructor: Cucullu, Lois B
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent; Instructor: Sugnet, Charles J
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent; Instructor: Ismail, Qadri M
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent; Instructor: Weinsheimer, Joel Clyde
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent; Instructor: Hancher, Michael
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent; Instructor: Lee, Josephine D
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent; Instructor: Eilfenbein, Andrew
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent; Instructor: Schumacher, Julie
Description: Student may contact the instructor or department for information.
ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent;
Instructor: Luke, David B
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent;
Instructor: Messer-Davidow, Ellen
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent;
Instructor: Watkins, John
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent;
Instructor: Garner, Shirley Nelson
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent;
Instructor: Fitzgerald, Maria J
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent;
Instructor: Hampi, Patricia
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent;
Instructor: Browne, M D
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent;
Instructor: Sprengnether, Madelon M
Description: Student may contact the instructor or department for information.
ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent;
Instructor: Craig, Siobhan S
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent;
Instructor: Krug, Rebecca L
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent;
Instructor: Scheil, Andrew
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent;
Instructor: Scheil, Katherine West
Description: Student may contact the instructor or department for information.

ENGL 8992 Directed Reading in Language, Literature, Culture, Rhetoric, Composition, or Creative Writing
1-9 credit(s), max credits 15, 15 repeats allowed; prereq instr consent, dept consent;
Instructor: Wright, Michelle M
Description: Student may contact the instructor or department for information.

ENGW 1104 Introduction to Literary Nonfiction Writing
3 credit(s);
Instructor: STAFF
Description: Introductory course in the art and craft of reading and writing nonfiction. Students will read and analyze contemporary and classic works of nonfiction and construct their own nonfiction writing. Students will be responsible for composing original works of nonfiction; commenting on student work; workshop participation; attending at a literary reading; and a final portfolio of nonfiction.
Style: 25% Lecture, 50% Discussion. workshop
Exam Format: Revised poems/final portfolio

ENGLISH: Creative Writing
222 Lind Hall

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 of poetry and also construct their own poetry. Students will be responsible for crafting original works of poetry; commenting on student work; workshop participation; attending at a literary reading; and a final portfolio of poetry.
Style: 25% Lecture, 50% Discussion. workshop
Exam Format: Revised stories/final portfolio

ENGW 3104 Intermediate Poetry Writing
3 credit(s);
Instructor: STAFF
Description: 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 3105 Advanced Poetry Writing**

4 credit(s); prereq 3104 or dept consent;  
**Instructor:** STAFF  
**Description:** EngW 3105 is for students with considerable experience in writing and reading poetry. Students should be familiar with poetic language and terminology. Students will read a mixture of classic and contemporary poetry and craft and revise their own work. Students will be responsible for writing and revision; workshop participation; written comments on student work; short papers and/or presentations; attendance at one literary event; final portfolio of poetry.

**Style:** 25% Lecture, 50% Discussion.  
**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 on student work, 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:** Final portfolio of poems

**ENGW 3960W Writing Workshop for Majors: Fiction/Nonfiction**

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

**ENGW 5130 Topics in Advanced Creative Writing: Quirky Memoir**

4 credit(s), max credits 16, 4 repeats allowed; prereq instr consent;  
**Instructor:** Nowak, Mark A  
**Description:** Student may contact the instructor or department for information.

**ENGW 5205 Screenwriting**

4 credit(s); prereq [Jr or Sr], one EngW 3xxx course, dept consent [permission number available in creative writing office];  
**Instructor:** STAFF  
**Description:** A hands-on advanced workshop for students with experience in creative writing and/or a working knowledge of basic screenplay format. Students' scripts-in-progress may be either a complete short film or an excerpt from a feature-length film. Class critiques will emphasize issues of imagery, characterization, plot and structure, as well as creative process within screenwriting. Also expect in-class screenings, guest presenters, and nuts and bolts discussion about story pitches, synopses, and other vagaries of the professional industry. For advanced undergraduates, graduate students, and writers from the community interested in continuing education. Ask for a permission number in 222 Lind Hall.

**ENGW 5310 Reading as Writers: Flash Forms**

4 credit(s), max credits 8; prereq grad student, dept consent;  
**Instructor:** Gonzalez, Ramon  
**Description:** Student may contact the instructor or department for information.

**ENGW 5993 Directed Study in Writing**

1-4 credit(s), max credits 16, 18 repeats allowed; prereq instr consent, dept consent, college consent;  
**Instructor:** STAFF  
**Description:** By arrangement with individual faculty. For more information, contact the Creative Writing Program at (612) 625-6366.

**ENGW 8110 Seminar: Writing of Fiction**

4 credit(s), max credits 16, 4 repeats allowed; prereq dept consent;  
**Instructor:** Baxter, Charles Roger  
**Description:** We'll be reading some short novels and narrative poems (and a few short stories), with some attention to focusing agents, narrative efficiency, teleseoping, tone, voice, and narrative temperatures. I'm particularly interested in the use of a narrowed range of subject-matter leading to a greater effect of intensity. Some possible choice of texts: Nathaniel West, Miss Lonelyhearts; Penelope Fitzgerald, The Blue Flower; William Maxwell, So Long, See you Tomorrow; Evan Connell, Mrs. Bridge; Andrew Holleran, Grief; Djuna Barnes, Nightwood; Leo Tolstoy, Family Happiness; Paula Fox, The Widow's Children and other texts to be determined. We'll also be workingshopping some fiction.

**ENGW 8120 Seminar: Writing of Poetry**

4 credit(s), max credits 8; prereq dept consent;  
**Instructor:** Damon, Maria  
**Description:** Student may contact the instructor or department for information.

**ENGW 8130 Seminar: Writing of Literary Nonfiction**

4 credit(s), max credits 8; prereq dept consent;  
**Instructor:** Philippon, Daniel J  
**Description:** Student may contact the instructor or department for information.

**ENGW 8170 MFA Practicum: EngW 1101W**

S-N only, 3 credit(s); prereq Creative writing MFA student, instr consent;  
**Instructor:** Malloy, Brian  
**Description:** Student may contact the instructor or department for information.

**Entomology**

219 Hodson Hall

**ENT 1905 Topics: Freshman Seminar**

1-3 credit(s), max credits 3, 1 repeat allowed; prereq Fr;  
**Instructor:** Weller, Susan J.  
**Description:** Student may contact the instructor or department for information.

**ENT 4015 Ornamentals and Turf Entomology**

3 credit(s); prereq 1xxx course in biol or hort or forest resources;  
**Instructor:** Krischik, Vera Aber  
**Description:** This is an introductory course for undergraduate students, graduate students, and professionals with an interest in the management of insects in urban landscapes and in greenhouse, turf and nursery industries. The course examines the principles and implementation of Integrated Pest Management programs to manage pests. IPM is the practice of using a variety of cultural, biological and chemical methods to manage insects. IPM methods include biotic and biological pest controls, monitoring insect populations and the judicious use of chemical pesticides applied at the most vulnerable time in an insect's life history. Pest life histories, risk potential, and biological control potential are reviewed. One goal of IPM is to reduce any harmful impact chemicals may have on beneficial insects, wildlife or water quality. This is a web-based course using the CUES website (www.entomology.umn.edu/cues) and other IPM resources on the web. The required textbook is V.
Krischik and J. Davidson. 2004. IPM of Midwest Landscapes. UMN extension number SB-07645 Questions? try krisch001@umn.edu website.

Style: 60% Lecture, 20% Discussion, 25% Laboratory.

Grading: 20% mid exam, 20% final exam, 30% quizzes, 25% laboratory evaluation, 5% problem solving.

Exam Format: Essay and multiple choice

ENT 4096 Professional Experience Program: Internship
S-N only, 1-3 credit(s), max credits 3, 1 repeat allowed; prerequisite COAFES Pr or enr, complete internship contract available in COAFES Career Services before enrolling, UC only, instr consent;

Instructor: STAFF

Description: Professional experience in entomology firms or government agencies through supervised practical experience, evaluative reports and consultations with faculty advisors and employers.

ENT 4231 Insect Behavior
A-F only, 3 credit(s); prerequisite Biol 1009 or equiv or instr consent; [3005 or EEB 3111] recommended;

Instructor: Heimpel,George Eugene

Description: Insects have evolved some of the most interesting and bizarre behaviors in the animal kingdom. These behaviors are evolutionary geared to maximizing reproduction and survival in the face of various pressures that insects face and with the aid of numerous opportunities that are available to them during their sometimes complex life cycles. In this class, we will explore these behaviors using a behavioral ecology approach. We will investigate hypotheses attempting to explain why insects have evolved the repertoire of behaviors that we now observe. We will focus on the insect life cycle by considering behaviors critical to mating, reproducing, foraging for food, and surviving throughout the insect world.

Style: 100% Lecture.

Grading: 35% mid exam, 35% final exam, 30% reports/papers.

Exam Format: There will be two exams: a midterm and a non-cumulative final. Both exams will be composed of a mixture of questions requiring answers that range in length from single words to whole paragraphs.

ENT 5021 Insect Taxonomy and Phylogeny
4 credit(s);

Instructor: Holzenthal,Ralph W

Description: This course covers evolution, classification, identification of orders and families of adult insects. The objectives are: 1. To familiarize the student with the characteristics used in the identification of adult insects to a family. 2. To familiarize the student with the evolution and classification of the insect orders. 3. To familiarize the student with the techniques of collecting and curating insects and with reconstructing phylogenies. Text: Borror, D.J., C.A. Triplehorn, N.F. Johnson. 1989. "An Introduction to the Study of Insects", 6th ed. Saunders College Publishing.

Style: 50% Lecture, 50% Laboratory.

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

Exam Format: Essay

ENT 5121 Applied Experimental Design
4 credit(s); prerequisite Stat 5021 or equiv or instr consent; Credit will not be granted if credit has been received for: AGRO 5121;

Instructor: Ehlke,Nancy Jo

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

ENT 5361 Aquatic Insects
A-F only, 4 credit(s); prerequisite instr consent;

Instructor: Ferrington Jr,Leonard Charles

Description: This course is designed for upper level undergraduate (junior and senior) and graduate students with interests in General Biology, Entomology, Aquatic Ecology, Limnology, Water Resources or Conservation Biology. Course content includes lectures, independent readings, and laboratory and field exercises. Students with no previous formal training in Entomology are encouraged to enroll, as an overview of basic entomological concepts will be presented during the first few weeks of class. The text will be Merritt & Cummins (eds), &quot;An Introduction to the Aquatic Insects of North America&quot; Third Edition (1996), and photocopies of selected journal articles will be provided. Lectures will focus on taxonomy, external morphology, life cycles, mating and foraging behaviors, evolution and natural history of insect orders with aquatic species. Lab work will consist of learning to use identification guides and published keys to identify aquatic insects to Order, family, and in some instances, genus. Field exercises will consist of general collecting methods for lake and stream or river sampling, plus qualitative surveys of local habitats. Uses of aquatic insects in determining water quality and impact of pollutants will also be discussed. A collection of aquatic insects, identified to family, is required. This class is web enhanced. URL will be provided first day of class.

Style: 50% Lecture, 50% Laboratory. All lectures in Power Point format and electronic copies available to students.

Grading: 20% final exam, 20% quizzes, 20% laboratory evaluation, 40% other evaluation. There will be two mid-semester exams counting 20% each.

Exam Format: Take home, with combination of multiple choice and short answer essay

ENT 5900 Basic Entomology
1-6 credit(s), max credits 12; prerequisite instr consent;

Instructor: STAFF

Description: Opportunity to make up certain deficiencies in biological background.

ENT 5910 Special Problems in Entomology
1-6 credit(s), max credits 10, 10 repeats allowed; prerequisite instr consent;

Instructor: STAFF

Description: Individual field, lab, or library studies in various aspects of entomology.

ENT 5920 Special Lectures in Entomology
1-3 credit(s), max credits 3, 3 repeats allowed;

Instructor: STAFF

Description: Lectures or laboratories in special fields of entomological research given by a visiting scholar or regular staff member.

ENT 8200 Colloquium in Social Insects
1-3 credit(s), max credits 3, 1 repeat allowed; prerequisite 3020 or 3200;

Instructor: Spivak,Marla

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

ENT 8300 Graduate Seminar
S-N only, 1 credit(s); prerequisite instr consent;

Instructor: Moon,Roger Dean

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 repeats allowed;

Instructor: Katovich,Steven A

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

ENT 8594 Research in Entomology
S-N only, 1-6 credit(s), max credits 36, 6 repeats allowed;

Instructor: Venette,Robert C

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 repeats allowed;

Instructor: Fallon,Ann M

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

This information is accurate as of 6/9/2008 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.
ENT 8594 Research in Entomology  
S-N only, 1-16 credit(s), max credits 36, 6 repeats 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 repeats allowed;  
Instructor: Ascerno,Mark E  
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 repeats allowed;  
Instructor: Cannon,Colleen Ann  
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 repeats 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 repeats allowed;  
Instructor: Mesce,Karen A  
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 repeats allowed;  
Instructor: Andow,David  
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 repeats allowed;  
Instructor: Holzenthal,Ralph W  
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 repeats allowed;  
Instructor: Kurtti,Timothy 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 repeats allowed;  
Instructor: Ostlie,Kenneth R  
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 repeats allowed;  
Instructor: Radcliffe,Edward B  
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 repeats allowed;  
Instructor: Spivak,Marla  
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 repeats allowed;  
Instructor: Hutchison PhD,William D.  
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 repeats allowed;  
Instructor: Moon,Roger Dean  
Description: Student may contact the instructor or department for information.

ENTR 6020 Business Formation  
A-F only, 4 credit(s); prereq MBA student;  
Instructor: Rao,Dileep R  
Description: Description This class is structured to help students analyze a new business opportunity, especially one without a history, and the key strategies and issues involved in starting a venture. The class is therefore designed for "apprenticeship-type real-life" replication. You should be open to analyzing unstructured situations. This course is designed for students who are interested in the venture field interested in starting, joining or acquiring their own businesses; as an intermediary/ consultant; as a financier (investment banker, commercial banker, development financier, etc.); or as a corporate executive involved in new product launches. Students are asked to analyze and discuss case studies of entrepreneurs who have started or acquired businesses and to develop reports analyzing an opportunity and developing a strategic plan for a business startup or acquisition to obtain insight into the startup process. Objectives 1. This course is designed to teach the students to apply the knowledge they have gained in previous courses in management, finance and marketing. 2. To understand the entrepreneurial process and the steps for successful entrepreneurial growth to help students achieve venture and entrepreneurial goals The primary objective of this course is to provide intellectual resources to students who are currently involved in or committed to entrepreneurial and new product pursuits as well as those who are interested in understanding entrepreneurship as a business phenomenon, whether or nor they wish to pursue entrepreneurial careers. Learning Outcomes Students will demonstrate the understanding of key concepts that are used to evaluate new business opportunities by analyzing the market potential, competitive edge and market share. Then they will implement the strategy to take advantage of the opportunity either via a startup or an acquisition by evaluating alternative competitive business and marketing strategies, and the management skills and experience required. Unique Opportunities / Learning Activities This class offers real-life opportunity evaluation and business formation experiences, including: - Discuss the framework for evaluating new business opportunities and business formation strategies so as to be able to apply them to new products/ ventures in your career. - Discuss cases of new ventures/ opportunities. - Hear entrepreneurs who have built their companies or are currently

Entrepreneurship  
3-306 CarlSMgt
leading their ventures. Career Application and Competencies
Developed The contents of this course can be used in a variety of
careers, including: - New product launches in corporations or
new ventures. - Evaluating opportunities to know which ones to
pursue. - Know the key issues to pursue when evaluating your
own new business opportunity.

ENTR 6020 Business Formation
A-F only, 4 credit(s); prereq MBA student;
Instructor: Zahra, Shaker A.
Description: Student may contact the instructor or department
for information.

ENTR 6021 Preparing and Implementing the Business Plan
A-F only, 2 credit(s), max credits 4, 1 repeat allowed; prereq
MBA student;
Instructor: Rao, Dileep R
Description: Description Students work in a collaborative setting
to write a business plan for their 'own' business venture launch,
either via a startup or acquisition. The course includes weekly
class meetings where each team of students presents various
aspects of their business plan as they develop it, such as the
elevator pitch, company mission, product/service value
propposition, customers/ market segmentation, competitive
analysis, business strategy, marketing plan and financial
projections. Students analyze and provide feedback on each
other's plans and learn from each other's analysis. At the end of
the course, students present their written business plan.
Objectives This course is designed to teach students how to
write a business plan. The students are introduced to the
requirements for a good business plan, and are expected to write
and present their plan. Student will work in teams and write a
plan for a business startup. Students have to present their
business plans in class, and a "consultant" (another student team)
is asked to analyze the business plan and make
recommendations to the "clients" (the class) on whether or not
they should finance or approve the venture. Learning Outcomes
Students will demonstrate knowledge of how to: 1. Write a
complete business plan; and 2. Analyze written business plans.
Unique Opportunities / Learning Activities This class offers
students the opportunity to write a 'reality-based' business plan
that is targeted towards venture capitalists. Activities include:
- Knowing the various sections of a business plan. -
Understanding how investors read business plans and what they
read "between the lines." - How to evaluate another team's
business plan so as to understand the perspective of the
consultant/ investment banker. - Present the business plan to
raise money. - Career Application and Competencies
Developed The contents of this course can be used in a variety of
careers, including: - Entrepreneurs interested in finding the
resources for high-growth ventures. - Those interested in
consulting with new ventures. - Those interested in financing
new ventures.

ENTR 6023 Financing Business Ventures
A-F only, 4 credit(s); prereq MBA student;
Instructor: Rao, Dileep R
Description: Description This class is designed to help students
understand the perspective of an entrepreneur who is seeking to
raise money or an investment banker seeking to help the
venture; and that of financiers who could potentially finance the
venture. Topics that will be covered include: 1. How to translate a
business plan to a financing plan; to develop alternate financing
plans for a specific business/ plan; choosing the "best" one
based on financial and non-financial criteria. 2. Types of
non-Fortune 1,000-type businesses -- as financiers view them. 3.
Financial institutions in the U.S., what they finance and their
financing criteria and market segmentation. 4. Financing instruments
used to finance business ventures in the U.S. -- when to use them and why.
Objectives To help students achieve an understanding of how
America's financing system works for all types of business
ventures -- with an emphasis on financing of high-growth
ventures. This course is designed for students who are
interested in the venture field as potential entrepreneurs
interested in starting, joining or acquiring their own businesses;
as intermediaries/ consultants; or as financiers (equity; debt;
development finance). Learning Outcomes Students will
demonstrate understanding of the American financial system,
including institutional/ individual and debt/ equity/ development to
learn the most appropriate financing plan for high-growth or
mid-sized businesses. Students will also develop the skills to
raise money for all types of new, emerging and growing
businesses. The emphasis is on application -- to raise money for
the non-Fortune 1000 businesses. Students will develop financial
plans to help ventures raise equity, debt or development
financing for startups or acquisitions. Unique Opportunities /
Learning Activities This class offers students the opportunity to
understand how entrepreneurs and their advisors can design the
"best? financing plan that combines low-cost development
finance, debt and equity; and how venture capitalists, lenders
and development financiers evaluate and finance ventures.
Unique opportunities include: - Knowing how much equity, debt
and development financing a venture can and should obtain. -
Applying this knowledge to various cases that are seeking
financing. - Listening to financiers who represent venture
capitalists, lenders and development financiers, including
entrepreneurs who have raised multiple tranches of financing.
Career Application and Competencies Developed
The contents of this course can be used in a variety of careers, including:
- Entrepreneurs developing new ventures. - Investment bankers
working with new ventures. - Venture capitalists and lenders
financing ventures. - Professionals, such as accountants and
attorneys, who work with entrepreneurs.

ENTR 6037 Corporate Venturing
A-F only, 2 credit(s);
Instructor: Nord, Tobin Lawrence
Description: Student may contact the instructor or department
for information.

ENTR 6041 New Product Design and Business Development
A-F only, 3 credit(s), max credits 6; prereq CSOM student;
Credit will not be granted if credit has been received for: ME
8221;
Instructor: Adams, Carl Robert
Description: See the course web site for a complete description.

ENTR 6090 Topics in Entrepreneurship
A-F only, 2-4 credit(s), max credits 8; prereq CSOM grad
student or instr consent;
Instructor: Zahra, Shaker A.
Description: Student may contact the instructor or department
for information.

ESPM 1011 Issues in the Environment
3 credit(s); meets CLE req of Citizenship/Publ Ethics Theme;
meets CLE req of Environment Theme;
Instructor: Arnold, Todd W.
Description: This course is an introductory survey of
environmental issues that explores the connections between
environmental sciences, policy, and management. The course
begins by reviewing scientific, ethical, and economic approaches
to environmental decision-making, but our primary focus will be
scientific. Then we examine a short review of ecology, focusing
on case studies involving threats to biological diversity. Finally,
we'll apply these perspectives to prominent environmental
issues, including human population growth, resource
consumption, land management (e.g. forestry, agriculture),
pollution, and energy use. The course is intended for first-year
students majoring in Environmental Sciences, Policy, and
Management (ESPM), and for all students who are interested in
the environment and wish to satisfy the University's liberal
education themes for Environment and Citizenship/Public Ethics.
The course has no prerequisites and is appropriate for students
with little or no scientific background.

Style: 80% Lecture, 5% Film/Video, 15% Discussion. 75 minute

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This information is accurate as of 6/9/2008 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.
ESPM 3221 Soil Conservation and Land-Use Management  
3 credit(s); prerequisite SOIL 1125 or 2125 or instr consent;  
Instructor: Wheeler, Daniel B  
Description: Student may contact the instructor or department  
for information.

ESPM 3241W Natural Resource and Environmental Policy: History, Creation, and Implementation  
3 credit(s); Credit will not be granted if credit has been  
received for: ESPM 5241; Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive;  
Instructor: Becker, Dennis R  
Description: This course examines the political and  
administrative processes at play in the use of natural resources  
and protection of the environment. The focus is on exposing  
students to the processes by which fundamental disagreements  
over how the conservation and management of natural resources  
among different stakeholders, private-sector interests, government agencies and institutions,  
and social science methodologies used to assess policy choices.  
Relevant laws and institutions will be reviewed. Students will also be exposed to basic scientific tools and techniques for  
developing policy alternatives, evaluating existing natural resource policies, and methodologies for monitoring and adaptive management. Students will apply these concepts and principles to a variety of contemporary issues through individual written assignments and team projects exploring aspects of problem definition, data collection, and the accretion of knowledge.  
Style: 35% Lecture, 45% Discussion, 20% Small Group  
Activities. Group and individual problem solving activities  
Grading: 15% mid exam, 25% final exam, 15% reports/papers,  
25% special projects, 15% quizzes, 5% class participation.  
Exam Format: Some multiple choice and true/false with  
justification; focus is on essay questions

ESPM 3480 Topics in Natural Resources  
1-4 credit(s), max credits 6, 6 repeats allowed;  
Instructor: Current, Dean Alan  
Description: Student may contact the instructor or department  
for information.

ESPM 3480 Topics in Natural Resources  
1-4 credit(s), max credits 6, 6 repeats allowed;  
Instructor: Singh, Virajita  
Description: Sustainable Communities provides a hands-on experience  
for addressing the complexity of a specific real-world sustainability problem each semester. In 2008, you will focus on greenhouse gas (GHG) emissions associated with components of the University community involving your daily actions: housing, transportation, and food. Class material will be presented through a combination of lecture and discussion and frequent participatory activities in which you will learn and apply systems methods, stressing work in collaborative groups and consulting with university services staff. You will study the campus as a complex system by building future scenarios of the campus in 2050 and mind-maps of campus emissions. You will also learn to integrate approaches from design, natural and social sciences to identify creative ways to reduce emissions. Writing assignments include microethemes, a final project, and a reflective essay on your experience in the course and as a leader in making your community more sustainable. The course is primarily intended for undergraduates who have taken ESPM 3003/GLOS 3304 or obtained instructor consent. This is a core course for the Sustainability Studies minor.  
Style: 30% Lecture, 50% Discussion, 20% Small Group  
Activities.  
Grading: 45% reports/papers, 10% in-class presentation, 20%  
class participation, 25% problem solving.

ESPM 3575 Wetlands Conservation  
3 credit(s); Credit will not be granted if credit has been  
received for: ESPM 5575;  
Instructor: Landwehr, Thomas John  
Description:  
Style: 75% Lecture, 5% Small Group Activities, 5% Student Presentation, 5% Field Trips, 10% Guest Speakers.  
Grading: 15% mid exam, 30% final exam, 10% reports/papers,  
20% special projects, 15% additional semester exams, 10% class participation.

ESPM 3601 Our Home, Our Environment  
A-F only, 3 credit(s); Credit will not be granted if credit has been  
received for: DHA 3482;  
Instructor: Yust, Becky L  
Description: Student may contact the instructor or department  
for information.

ESPM 3602 Regulatory and Ethical Frameworks for CEM  
A-F only, 3 credit(s); prerequisite APEC 1101 or ECON 1101 or  
3261W; Credit will not be granted if credit has been received for: ESPM 5602;  
Instructor: STAFF  
Description: Students will learn the basic principles and  
evolution of environmental regulatory development and  
implementation at U.S. national, state, and local levels as well as some introduction to international regulations. The course will emphasize the perspectives of the various stakeholders concerned with regulatory and non-regulatory responses to the perceived threats to environmental health. In particular, students will gain insight into the issues corporations need to deal with to achieve successful environmental management.

ESPM 3605 Recycling: Extending Raw Materials  
A-F only, 3 credit(s); Credit will not be granted if credit has been  
received for: ESPM 5605;  
Instructor: Tschirner, Ulrike Waltrau  

ESPM 3703 Agroforestry in Watershed Management  
3 credit(s); Credit will not be granted if credit has been received for: ESPM 5703;  
Instructor: Zamora, Diomides S  
Description: Agroforestry systems and practices are described and discussed as alternatives to more conventional agriculture in developed countries and as viable land use alternatives in poorer countries of the world. Attributes of agroforestry are studied, including a more diversified landscape, greater soil stability, improved water quality, reduced runoff, and improved wildlife habitat. The role of agroforestry in achieving watershed management benefits and ultimately sustainable development is discussed. Examples from North America and from other parts of the world are presented to emphasize agroforestry applications in both temperate and tropical climates. Lectures are mixed with active discussions. Students are required to develop and present a paper on an agroforestry topic.  
Style: 50% Lecture, 50% Discussion.  
Grading: 60% reports/papers, 10% special projects, 10%  
in-class presentation, 20% class participation.

ESPM 4021W Problem Solving: Environmental Review  
4 credit(s); Meets CLE req of Writing Intensive;  
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 repeats allowed; prerequisite  
Instructor: Anderson PhD, Dorothy Helen  
Description: Student may contact the instructor or department  
for information.

ESPM 4093 Directed Study  
1-7 credit(s), max credits 20, 20 repeats allowed; prerequisite  

ESPM 4093 Directed Study
1-7 credits(s), max credits 20, 20 repeats allowed; prereq instr consent;
Instructor: Bloom, Paul Ronald
Description: Student may contact the instructor or department for information.

ESPM 4094 Directed Research
1-7 credits(s), max credits 7, 7 repeats allowed; prereq instr consent;
Instructor: Nater, Ed
Description: Student may contact the instructor or department for information.

ESPM 4096 Professional Experience Program: Internship
1 credit(s), max credits 6, 6 repeats 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 4256 Natural Resource Law and the Management of Public Lands and Waters
A-F only, 3 credits(s); prereq 3241 or instr consent; Credit will not be granted if credit has been received for: ESPM 5256;
Instructor: Enzler, Sherry Anne
Description: Student may contact the instructor or department for information.

ESPM 4607 Industrial Biotechnology and the Environment
A-F only, 2 credits(s); prereq BIOL 1009, CHEM 1021; Credit will not be granted if credit has been received for: ESPM 5607;
Instructor: Sarkanean, Simo
Description: The course will provide the fundamental background for students who are not in science or engineering to understand the following: Biomass utilization and biobased products development; Conversion of renewable raw materials to nonfood/nonfeed commodity products and biofuels: Fundamental molecular biological applications to industrial problems; Assessment of environmental consequences of biobased products utilization; Biocatalysis and its relevance to biobased products and biofuels production; Emerging and future biotechnological developments in industry
Style: 80% Lecture, 20% Discussion.
Grading: 70% quizzes, 30% class participation.

ESPM 4801H Honors Research
A-F only, 2 credits(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 credits(s); prereq ENR upper div honors, instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

ESPM 4811 Environmental Interpretation
A-F only, 3 credits(s); prereq Jr or sr grad student; Credit will not be granted if credit has been received for: ESPM 5811;
Instructor: Carlson, Stephan Paul
Description: Student may contact the instructor or department for information.

ESPM 5001 Treaty Rights and Natural Resources
A-F only, 3 credits(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: ESPM 3001;
Instructor: Spangler, George R
Description: Student may contact the instructor or department for information.

ESPM 5031 Applied Global Positioning Systems for Geographic Information Systems
A-F only, 3 credits(s); prereq Grad student or instr consent; credit will not be granted if credit received for: Biol 5501; Credit will not be granted if credit has been received for: ESPM 3031;
Instructor: Bolstad, Paul V
Description: Student may contact the instructor or department for information.

ESPM 5111 Hydrology and Water Quality Field Methods
A-F only, 3 credits(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: ESPM 3111;
Instructor: Magner, Joe
Description: This course will help prepare you for future TMDL work. Helping you build a toolbox of field skills and knowledge will aid your future hydrologic or environmental career. We spend some time in the classroom but most of the time we climb into a van and go to NOAA, USGS, and MPCA for insight and training during the first 6-7 Thursdays. We skip some Thursdays in March and April to travel on a Saturday to the Knife River along the North Shore, see mud volcanoes in Deer Creek, assess sinkholes/springs in western WI, and measure streamflow in the Minnesota River valley. You need to make 2 of 3 all day trips in April.
Style: 25% Lecture, 10% Discussion. Field
Grading: 25% mid exam, 25% final exam, 25% reports/papers, 20% in-class presentation, 5% other evaluation. Peer review
Exam Format: Essay

ESPM 5202 Environmental Conflict Management, Leadership, and Planning
A-F only, 3 credits(s); prereq Grad or instr consent; Credit will not be granted if credit has been received for: ESPM 3202W;
Instructor: Nelson, Kristen C
Description: Student may contact the instructor or department for information.

ESPM 5207 Emerging Issues in Tropical Agriculture and Forestry: Costa Rica
3 credits(s); prereq Grad student, instr consent; Credit will not be granted if credit has been received for: ESPM 3207;
Instructor: Current, Dean Alan
Description: Student may contact the instructor or department for information.

ESPM 5211 Survey, Measurement, and Modeling for Environmental Analysis
3 credits(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: ESPM 3211;
Instructor: Ek, Alan Ryan
Description: Student may contact the instructor or department for information.

ESPM 5241 Natural Resource and Environmental Policy: History, Creation, and Implementation
3 credits(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: ESPM 3241W;
Instructor: Becker, Dennis R

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ESPM 5256 Natural Resource Law and the Management of Public Lands and Waters
A-F only, 3 credit(s); prereq 3241, [sr or grad student]; Credit will not be granted if credit has been received for: ESPM 4256;
Instructor: Enzler, Sherry Anne
Description: Students may contact the instructor or department for information.

ESPM 5480 Topics in Natural Resources
1-4 credit(s), max credits 6, 6 repeats allowed; prereq Sr or grad student;
Instructor: Current, Dean Alan
Description: Students may contact the instructor or department for information.

ESPM 5575 Wetlands Conservation
3 credit(s); prereq =: 3575; sr or grad student or instr consent; Credit will not be granted if credit has been received for: ESPM 3575;
Instructor: Landwehr, Thomas John
Description: Students may contact the instructor or department for information.

ESPM 5601 Principles of Waste Management
A-F only, 3 credit(s); prereq 1125 or 2125, Biol 1002/1009 or Chem 1021, Stat 3011, ApEc 1101 or instr consent;
Instructor: Halbach, Thomas R.
Description: Students may contact the instructor or department for information.

ESPM 5602 Regulatory and Ethical Frameworks for CEM
A-F only, 3 credit(s); prereq ApEc 1101 or Econ 1101; Credit will not be granted if credit has been received for: ESPM 3602;
Instructor: STAFF
Description: Students will learn the basic principles and evolution of environmental regulatory development and implementation at U.S. national, state, and local levels as well as some introduction to international regulations. The course will emphasize the perspectives of the various stakeholders concerned with regulatory and non-regulatory responses to the perceived threats to environmental health. In particular, students will gain insight into the issues corporations need to deal with to achieve successful environmental management.

ESPM 5603 Recycling: Extending Raw Materials Supplies
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: ESPM 3605;
Instructor: Tschirner, Ulrike Waltrau

ESPM 5607 Industrial Biotechnology and the Environment
A-F only, 2 credit(s); prereq BIOL 1009, CHEM 1021, grad student; Credit will not be granted if credit has been received for: ESPM 4607;
Instructor: Sarkari, Simo
Description: The course will provide the fundamental background for students who are not in science or engineering to understand the following: Biomass utilization and biobased products development; Conversion of renewable raw materials to nonfood/nonfeed commodity products and biofuels; Fundamental molecular biological applications to industrial problems; Assessment of environmental consequences of biobased products utilization; Biocatalysis and its relevance to biobased products and biofuels production; Emerging and future biotechnological developments in industry
Style: 80% Lecture, 20% Discussion.
Grading: 50% reports/papers, 50% quizzes, 20% class participation.

ESPM 5703 Agroforestry in Watershed Management
3 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: ESPM 3703;
Instructor: Zamora, Diomides S
Description: Agroforestry systems and practices are described and discussed as alternatives to more conventional agriculture in developed countries and as viable land use alternatives in poorer countries of the world. Attributes of agroforestry are studied, including a more diversified landscape, greater soil stability, improved water quality, reduced runoff, and improved wildlife habitat. The role of agroforestry in achieving watershed management benefits and ultimately sustainable development is discussed. Examples from North America and from other parts of the world are presented to emphasize agroforestry applications in both temperate and tropical climates. Lectures are mixed with active discussions. Students are required to develop and present a paper on an agroforestry topic.
Style: 50% Lecture, 50% Discussion.
Grading: 20% reports/papers, 20% class participation.

ESPM 5811 Environmental Interpretation
A-F only, 3 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: ESPM 4811;
Instructor: Carlson, Stephen Paul
Description: Students may contact the instructor or department for information.

Experimental and Clinical Pharmacology
7-159 WDH

ECP 8100 Seminar
1 credit(s), max credits 8, 8 repeats allowed; prereq SACP grad major in ECP track or instr consent;
Instructor: Brundage, Richard
Description: Student may contact the instructor or department for information.

ECP 8420 Clinical Trial Simulation
2 credit(s); prereq SACP grad major in ECP track or instr consent;
Instructor: Brundage, Richard
Description: Student may contact the instructor or department for information.
University of Minnesota - Course Guide for Twin Cities Campus

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Family Medicine and Community Health

FMCH 5345 Curriculum Design and Teaching Strategies for Medical Education I
A-F only, 3 credit(s); prereq concurrent enrollment in 5346, instr consent;
Instructor: Bland, Carole Jeanne
Description: Student may contact the instructor or department for information.

FMCH 5346 Curriculum Design and Teaching Strategies for Medical Education II
A-F only, 1 credit(s); prereq concurrent registration is required (or allowed) in 5345, instr consent;
Instructor: Bland, Carole Jeanne
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 repeats allowed; prereq [Family medicine faculty or fellow], instr consent;
Instructor: Bland, Carole Jeanne
Description: Student may contact the instructor or department for information.

Family Policy Minor

FPOL 8000 Family Policy Perspectives
A-F only, 3 credit(s);
Instructor: Baur, Jean W
Description: Student may contact the instructor or department for information.

Family Social Science

290 McNeal Hall

FSOS 1101 Intimate Relationships
4 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core;
Instructor: Mendenhall PhD, Tai Justin
Description: Student may contact the instructor or department for information.

FSOS 1201 Human Development in Families: Lifespan
4 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core;
Instructor: Gewirtz, Abigail
Description: Student may contact the instructor or department for information.

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.
Style: 100% Web Based. Distance learning, web-based
Grading: 40% reports/papers, 60% quizzes.
Exam Format: Multiple choice
FSOS 2103 Family Policy
3 credit(s);
Instructor: STAFF
Description: This is a course about families and government policy. The study of government policy is essentially the study of how people create an organized society. In most nations, laws or other government policies are the means used to organize a society. In this course, we will specifically study laws or other government policies that affect family well-being. In doing so, we will take a cross-national approach. That means you will learn about laws and policies affecting family well-being in the U.S. and in other nations. We will focus primarily on trying to understand how different societies organize themselves (i.e., create the laws or policies) in response to family needs. To facilitate class discussion, you will often be asked to form into small discussion groups. Later in the semester, you will be asked to join a policy analysis group. You will work with the members of your group to analyze a family policy and prepare policy testimony. Please use the first few class days to get to know your classmates so you will be able to make a good choice about your policy analysis group.

FSOS 2105 Methods in Family Research
3 credit(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: Rueter, Martha A
Description: This course is an analysis of personal and family research. It is designed to be applicable to the course focuses on personal and family finances, not corporate or insurance; public, private pensions, and estate planning. This credit, mortgages, taxation, life, disability, health, and property

FSOS 2191 Independent Study in Family Social Science
1-4 credit(s), max credits 12, 12 repeats 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.

FSOS 3101 Personal and Family Finances
3 credit(s); prereq At least soph or instr consent ;
Instructor: Zuker, Virginia Solis
Description: This course is an analysis of personal and family financial management principles. Students will learn concepts pertaining to the financial planning of savings, investments, credit, mortgages, taxation, life, disability, health, and property insurance; public, private pensions, and estate planning. This course focuses on personal and family finances, not corporate or government finances. It is designed to be applicable to the student's personal life decisions and his/her professional role. This course will address financial pitfalls, economic security, and ways to accumulate wealth. Undergraduate students, students majoring in Family Social Science, and students from other majors are welcome to and could learn from this class.
Style: 25% Lecture, 25% Discussion. guest speaker
Grading: 26% mid exam, 32% final exam, 10% quizzes, 32% other evaluation. Personal financial portfolio Exam Format: multiple choice

FSOS 3102 Family Systems and Diversity
3 credit(s); prereq At least soph or instr consent; Credit will not be granted if credit has been received for: FSOS 5101; Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core;
Instructor: Xiong PhD, Zha Blong
Description: Student may contact the instructor or department for information.

FSOS 3102 Family Systems and Diversity
3 credit(s); prereq At least soph or instr consent; Credit will not be granted if credit has been received for: FSOS 5101; Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core;
Instructor: Craft, Shonda M
Description: This course is an analysis of personal and family research. It is designed to be applicable to the course focuses on personal and family finances, not corporate or insurance; public, private pensions, and estate planning. This credit, mortgages, taxation, life, disability, health, and property

FSOS 3104 Global and Diverse Families
3 credit(s); prereq at least Soph or instr consent; Credit will not be granted if credit has been received for: FSOS 4102;
Instructor: Xieng PhD, Zha Blong
Description: This course is an analysis of personal and family research. It is designed to be applicable to the course focuses on personal and family finances, not corporate or insurance; public, private pensions, and estate planning. This credit, mortgages, taxation, life, disability, health, and property

FSOS 3104 Global and Diverse Families
3 credit(s); prereq at least Soph or instr consent; Credit will not be granted if credit has been received for: FSOS 4102;
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: African-American families; American Indian families; Mexican-American families; Hmong and other recent immigrant families from Southeast Asia; Somali and other recent immigrant families from Northwest Africa; population policy; and economic, monetary, and trade policy.
Style: 45% Lecture, 25% Discussion. videos and discussion of videos Grading: 44% final exam, 11% reports/papers, 44% quizzes. Exam Format: choice between essay and mostly multiple choice

FSOS 3105 Alcohol and Drugs: Families and Culture
3 credit(s); Credit will not be granted if credit has been received for: FSOS 5426; Meets CLE req of Social Science Core;
Instructor: Jankord, John Lamont
Description: This course provides an integrated overview of the psychology and sociology of psychoactive drug use, abuse, addiction, and evidenced-based treatment approaches in contemporary American society. The complex relationships between individual, group, and socio-cultural dimensions of drug using behavior will be explored. Special attention is given to variables of ethnicity, gender, sexuality, and social class. The bio-psycho-socio-cultural model is used to conceptualize addiction and its treatment. Lectures, readings, large and small group discussions and projects, and individual research and writing projects are used to advance the student knowledge and understanding.
Style: 29% Lecture, 14% Film/Video, 18% Discussion, 14% Small Group Activities, 15% Student Presentation, 10% Guest Speakers.
Grading: 12% mid exam, 12% final exam, 15% attendance, 8% journal, 32% reflection paper, 6% in-class presentation, 15% class participation.
Exam Format: There will be two exams during the semester. These exams will consist of approximately 35-45 questions that
Take the form of multiple choice, true/false, and short answer.

FSOS 4349 Counseling Skills Practicum I
3 credit(s); Credit will not be granted if credit has been received for: FSOS 5429;
Instructor: STAFF
Description: Development of competency in basic counseling skills. Topics include: counselor needs/motivations, non-verbal communication, empathy (basic and advanced), identifying strengths, maintaining focus, challenging discrepancies, use of self. Emphasis on building from client strengths. Focus on learning through role-playing.
Style: 25% Lecture, 25% Discussion. role-play skill development
Grading: 30% final exam, 20% reports/papers, 25% class participation, 25% problem solving.
Exam Format: role play

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 in 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 sexuality 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 film
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: Wieling, Elizabeth
Description: Family Psychology deals with processes that take place in families of origin, families of choice, and other close relationships within diverse social contexts. The emphasis is on evaluating current research on family dynamics within and across generations. It is an advanced undergraduate course that graduate students may take with permission. It is assumed that students will already be familiar with basic social science research. Students not familiar with this prerequisite material should not enroll and should consider taking a more basic course such as FSoS 3102. “Family psychology represents a significant conceptual leap in the field of psychology. Traditionally, psychologists have focused on the individual as the unit of study. Family psychologists focus on the individual in the context of intimate others. They see the individual within a social system which means their thinking and interventions are relational and contextual in nature. In this respect the family psychologist is a system thinker. The individual system (the individual), the interactional system (the couple), and the intergenerational system (family-of-origin) are all related and exert reciprocal influences on each other. Viewing the individual within the interlocking nature of these systems results in a more holistic, comprehensive, and multi-determined theory of human functioning.” (p. 10) Weeks, G.R., & Nixson, G.F. (1991). Family psychology: The specialty statement of an evolving field. The Family Psychologist, 7(4), 9-18.
Style: 60% Lecture, 20% Discussion. role play
Grading: 90% mid exam, 10% class participation.

FSOS 4152 Gay, Lesbian, and Bisexual People in Families
3 credit(s); prereq At least jr or instr consent;
Instructor: Craft, Shonda M
Description: Student may contact the instructor or department for information.

FSOS 4154W Families and Aging
3 credit(s); prereq At least jr or instr consent; Meets CLE req of Writing Intensive;
Instructor: Lassig, Sara Lynn
Description: Student may contact the instructor or department for information.

FSOS 4155 Parent-Child Relationships
A-F only, 3 credit(s);
Instructor: Magistad, Beth Maddock
Description: This course will cover historical and modern theories of parent-child relationships in families across the life span. Students will explore the complexity of parent-child relationships found across families and cultures in the United States. The course has both personal and professional application. This course will be web enhanced with WebCT.
Style: 70% Lecture, 10% Discussion. films, class activities, group work
Grading: 13% mid exam, 13% final exam, 13% reports/papers, 13% special projects, 26% quizzes, 7% in-class presentation, 13% class participation.
Exam Format: Multiple choice

FSOS 4156 Legal-Economic Controversies in Families
3 credit(s); prereq 3101 or instr consent;
Instructor: Retig, PhD, Kathryn K. D.
Description: The purpose of the course is to practice critical thinking applied to controversial family issues in order to develop competencies for effective participation in public decision-making processes. Competencies that are important for letters to editors, legislative testimony, public speeches, and written papers include: stating and analyzing the controversy, understanding types of reasoning, presenting affirmative and negative arguments, separating fact from judgement/beliefs from knowledge, and inductive and deductive reasoning. Competencies in reasoned public decision making are needed in a world where the issues that confront us are increasingly more complex and unprecedented. The course is intended for advanced undergraduates and beginning graduate students. It is multi-disciplinary and integrates content of family relationships, family economics and law, family policy, family financial management and decision making. The course is taught by lecture, discussion, small group controversial discussions, argumentation and debate, and written arguments. There are frequent short writing assignments and a final written paper presenting both pro and con arguments for a student-chosen controversy, as well as midterm and final exams.
Style: 20% Lecture, 40% Discussion. Group work, controversy arguments in debate
Grading: 25% mid exam, 25% final exam, 40% reports/papers, 5% in-class presentation, 5% class participation.

FSOS 4160H Honors Capstone Project
A-F only, 2 credit(s), max credits 4; prereq FSoS honors;
Instructor: Solheim, Catherine Ann
Description: Student may contact the instructor or department for information.

FSOS 4160H Honors Capstone Project
A-F only, 2 credit(s), max credits 4; prereq FSoS honors;
Instructor: Bauer, Jean W
Description: Student may contact the instructor or department for information.

FSOS 4160H Honors Capstone Project
A-F only, 2 credit(s), max credits 4; prereq FSoS honors;
Instructor: Xiong, PhD, Zha Blong
Description: Student may contact the instructor or department for information.

FSOS 4160H Honors Capstone Project
A-F only, 2 credit(s), max credits 4; prereq FSoS honors;
Instructor: Rosenblatt, Paul C
Description: Student may contact the instructor or department for information.

This information is accurate as of 6/9/2008 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.
FSOS 4160H Honors Capstone Project  
A-F only, 2 credit(s), max credits 4; prereq FSoS honors;  
Instructor: Craft, Shonda M  
Description: Student may contact the instructor or department for information.

FSOS 4191 Independent Study in Family Social Science  
1-4 credit(s), max credits 12, 12 repeats 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 4294 Research Internship  
1-4 credit(s), max credits 4, 1 repeat allowed; prereq [FSOS major, at least jr] or instr consent;  
Instructor: STAFF  
Description: Students work on research projects with Family Social Science faculty that may include research planning, proposal writing, literature review, data collection, data coding and/or cleaning, data analysis and research reporting.

FSOS 4296 Field Study: Working With Families  
S-N only, 1-12 credit(s), max credits 12, 4 repeats allowed; prereq [2101, 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 5014 Quantitative Family Research Methods I  
3 credit(s); prereq Grad student or instr consent;  
Instructor: Rueter, Martha A  
Description: Student may contact the instructor or department for information.

FSOS 5015 Family Research Laboratory  
S-N only, 1 credit(s); prereq Grad student or instr consent;  
Instructor: Schulz, Catherine L  
Description: Student may contact the instructor or department for information.

FSOS 5193 Directed Study in Family Social Science  
1-6 credit(s), max credits 6, 1 repeat 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 5426 Alcohol and Drugs: Families and Culture  
3 credit(s); Credit will not be granted if credit has been received for: FSOS 426;  
Instructor: Jankord, John Lamont
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 6/9/2008 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 2008

FSOS 5429 Counseling Skills Practicum I
3 credit(s); Credit will not be granted if credit has been received for: FSOS 3429;
Instructor: STAFF
Description: Development of competency in basic counseling skills. Topics include: counselor needs/motivations, non-verbal communication, empathy (basic and advanced), identifying strengths, maintaining focus, challenging discrepancies, use of self. Emphasis on building from client strengths. Focus on learning through role-playing.
Style: 25% Lecture, 25% Discussion. role-play skill development
Grading: 30% final exam, 20% reports/papers, 25% class participation, 25% problem solving.
Exam Format: role play

FSOS 8003 Current Issues in Family Science
3 credit(s);
Instructor: Solheim,Catherine Ann
Description: Student may contact the instructor or department for information.

FSOS 8005 Multicultural Issues in Family Social Science
3 credit(s);
Instructor: Turner,William Lofton
Description: Student may contact the instructor or department for information.

FSOS 8047 Integrative Research Seminar
3 credit(s); prereq 8001 or equiv, 8013 or equiv, 8014 or equiv;
Instructor: Rettig PhD,Kathryn K. D.
Description:

FSOS 8104 Family Policy Seminar
3 credit(s);
Instructor: Solheim,Catherine Ann
Description: Student may contact the instructor or department for information.

FSOS 8150 Topics in Family Social Science
1 credit(s), max credits 6, 6 repeats allowed; prereq FSoS grad student or instr consent ;
Instructor: Meyer,Cynthia Jo
Description: Student may contact the instructor or department for information.

FSOS 8193 Directed Study in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed; prereq Doctoral student in FSoS or related field;
Instructor: Solheim,Catherine Ann
Description: Student may contact the instructor or department for information.

FSOS 8193 Directed Study in Family Social Science
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
<th>Description</th>
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<tbody>
<tr>
<td>FSOS 8193</td>
<td>Directed Study in Family Social Science</td>
<td>Solheim, Catherine Ann</td>
<td>S-N only, 1-6 credit(s), max credits 12, 12 repeat allowed; prereq Family</td>
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<td>Social Science student; Doctorant student in FSOS or related field;</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<td>FSOS 8193</td>
<td>Directed Study in Family Social Science</td>
<td>Wieling, Elizabeth</td>
<td>S-N only, 1-6 credit(s), max credits 12, 12 repeat allowed; prereq Family</td>
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<tr>
<td>FSOS 8193</td>
<td>Directed Study in Family Social Science</td>
<td>Minor, Brier Miller</td>
<td>S-N only, 1-6 credit(s), max credits 12, 12 repeat allowed; prereq Family</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<tr>
<td>FSOS 8275</td>
<td>Clinical Consultation with Couples and Families</td>
<td>Doherty, William J</td>
<td>S-N only, 3 credit(s); prereq instr consent; required for grad Family</td>
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<td>Social Science majors in marriage and family therapy prog;</td>
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<td>Instructor: Minor, Brier Miller</td>
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<tr>
<td>FSOS 8295</td>
<td>Family Therapy Practicum</td>
<td>Doherty, William J</td>
<td>S-N only, 1-12 credit(s), max credits 12, 1 repeat allowed; prereq Family</td>
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<td>FSOS 8296</td>
<td>Family Therapy Internship</td>
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<td>S-N only, 1-21 credit(s), max credits 21, 1 repeat allowed; prereq Family</td>
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<td>FSOS 8297</td>
<td>Supervision of Supervision</td>
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<td>S-N only, 1-3 credit(s), max credits 12, 12 repeat allowed; prereq Family</td>
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<td>FSOS 8560</td>
<td>Advanced Clinical Topics in Marriage and Family</td>
<td>Wieling, Elizabeth</td>
<td>A-F only, 3 credit(s), max credits 36, 6 repeat allowed; prereq FSOS PhD</td>
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<td>Instructor: Wieling, Elizabeth</td>
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<td>FSOS 8755</td>
<td>Master’s Paper: Plan B Project</td>
<td>Solheim, Catherine Ann</td>
<td>S-N only, 1-6 credit(s), max credits 6, 1 repeat allowed; prereq FSOS MA</td>
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prereq FSOS MA student;
Instructor: Gewirtz, Abigail
Description: Student may contact the instructor or department for information.

FSOS 8755 Master's Paper: Plan B Project
S-N only, 1-6 credit(s), max credits 6, 1 repeat allowed;
prereq FSOS MA student;
Instructor: Turner, William Lofton
Description: Student may contact the instructor or department for information.

FSOS 8755 Master's Paper: Plan B Project
S-N only, 1-6 credit(s), max credits 6, 1 repeat allowed;
prereq FSOS MA student;
Instructor: Wieling, Elizabeth
Description: Student may contact the instructor or department for information.

FSOS 8755 Master's Paper: Plan B Project
S-N only, 1-6 credit(s), max credits 6, 1 repeat allowed;
prereq FSOS MA student;
Instructor: Dworkin, Jodi
Description: Student may contact the instructor or department for information.

FSOS 8755 Master's Paper: Plan B Project
S-N only, 1-6 credit(s), max credits 6, 1 repeat allowed;
prereq FSOS MA student;
Instructor: McCulloch, B. Jan
Description: Student may contact the instructor or department for information.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed;
prereq Grad FSOS major;
Instructor: Gewirtz, Abigail
Description: Student may contact the instructor or department for information.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed;
prereq Grad FSOS major;
Instructor: Goodman, William Joseph
Description: Student may contact the instructor or department for information.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed;
prereq Grad FSOS major;
Instructor: Zukor, Virginia Solis
Description: Student may contact the instructor or department for information.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed;
prereq Grad FSOS major;
Instructor: Doherty, William J
Description: Student may contact the instructor or department for information.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed;
prereq Grad FSOS major;
Instructor: Stum, Marlene Sue
Description: Student may contact the instructor or department for information.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed;
prereq Grad FSOS major;
Instructor: Rettig PhD, Kathryn K. D.
Description: Student may contact the instructor or department for information.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed;
prereq Grad FSOS major;
Instructor: Bauer, Jean W
Description: Student may contact the instructor or department for information.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed;
prereq Grad FSOS major;
Instructor: Solheim, Catherine Ann
Description: Student may contact the instructor or department for information.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed;
prereq Grad FSOS major;
Instructor: Stum, Marlene Sue
Description: Student may contact the instructor or department for information.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed;
prereq Grad FSOS major;
Instructor: Turner, William Lofton
Description: Student may contact the instructor or department for information.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed;
prereq Grad FSOS major;
Instructor: Gewirtz, Abigail
Description: Student may contact the instructor or department for information.

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1-6 credit(s), max credits 12, 12 repeats allowed;
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FSOS 8794 Directed Research in Family Social Science
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Instructor: Gewirtz, Abigail
Description: Student may contact the instructor or department for information.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed;
prereq Grad FSOS major;
Instructor: Wieling, Elizabeth
Description: Student may contact the instructor or department for information.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed;
prereq Grad FSOS major;
Instructor: Dworkin, Jodi
Description: Student may contact the instructor or department for information.

FSOS 8794 Directed Research in Family Social Science
1-6 credit(s), max credits 12, 12 repeats allowed;
prereq Grad FSOS major;
Instructor: McCulloch, B. Jan
Description: Student may contact the instructor or department for information.
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 4121 Financial Markets and Interest Rates
A-F only, 2 credit(s); prereq 4241;
Instructor: STAFF
Description: 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.

FINA 4241 Corporate Financing Decisions
A-F only, 4 credit(s); prereq 3001;
Instructor: STAFF
Description: Theoretical/applied understanding of corporate financial decisions. Efficient markets, financial decisions, tax effects, managerial incentives, investment banking, effect of financing issues on investment decisions, basic options.

FINA 4242 Corporate Investment Decisions
A-F only, 4 credit(s); prereq 4241;
Instructor: STAFF
Description: Focuses on efficiently managing working capital and fixed assets. Cases illustrate some of the topics: working capital management, making capital budgeting decisions, targeting/evaluating firm performance, assessing mergers/acquisitions.

FINA 4321 Portfolio Management and Performance Evaluation
A-F only, 2 credit(s); prereq 4241;
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 4322 Security Analysis
A-F only, 2 credit(s); prereq 4241;
Instructor: STAFF

FINA 4541 Futures, Options, and Other Derivative Securities
A-F only, 4 credit(s); prereq 4121, 4241, 4321;
Instructor: Graveline, Jeremy J
Description: This course will explore the basic fundamental derivatives contracts and the financial models used to value these contracts. We will introduce the concepts of using derivatives as hedging vehicles in portfolios or as risk management tools in organizations. The study of derivatives is one of the most complex areas in finance. This complexity is manifested in three ways. First, the basic cashflow payoffs of derivative contracts are often complicated to understand or predict. Second, the pricing models used in derivative valuation are more complex than those used for most other financial assets. Many derivative contracts are valued with highly sophisticated mathematical models. And finally, many of the financial models used to value derivatives have demonstrable weaknesses or less than fully accurate underlying assumptions. As a result it is important for the student to realize these limitations and be wary when using derivatives in hedging, investment or risk management applications. Therefore this course will primarily focus on building a strong understanding of the theoretical underpinnings of derivatives valuation, while minimizing mathematical complexity. Students will learn to identify and explain the payoff structures of derivative contracts. Students will also learn how to apply derivative valuation models to option, forward, futures and swap contracts. Special attention will be paid to the replication of these contracts with cash market instruments.
Style: 70% Lecture. Problem solving. Class will work through examples.
Grading: 30% mid exam, 30% final exam, 10% special projects, 20% problem solving.
Exam Format: Word problems.

FINA 6121 Debt Markets, Interest Rates, and Hedging
A-F only, 2 credit(s); prereq MBA 6230, MBA student;
Instructor: Bazdresch, Santiago

FINA 6241 International Finance and Risk Management
A-F only, 4 credit(s); prereq 3001;
Instructor: Bazdresch, Santiago
Description: Student may contact the instructor or department for information.

FINA 6242 Advanced Corporate Finance Analysis and Decisions
A-F only, 4 credit(s); prereq 6241;
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 8892 Independent Study in Finance
A-F only, 2 credit(s); 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 repeats 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.

Financial Mathematics

FM 5002 Preparation for Financial Mathematics II
3 credit(s); prereq 5001, program director approval; Instructor: Adams, Scot Robert
Description: Student may contact the instructor or department for information.

FM 5012 Mathematical Background for Finance II
4 credit(s); prereq 5011, grad MFM major, program director approval; Instructor: Graveline, Jeremy J
Description: Student may contact the instructor or department for information.

FM 5022 Mathematical Theory Applied to Finance II
4 credit(s); prereq 5021, [5012 or Concurrent registration is required (or allowed) in 5012], grad MFM major, program director approval; Instructor: Nelson, Rick
Description: Student may contact the instructor or department for information.

FM 5032 A Practitioner’s Course in Finance II
4 credit(s); prereq 5031, [5022 or Concurrent registration is required (or allowed) in 5022], grad MFM major, program director approval; Instructor: Tolmasky, Carlos
Description: Student may contact the instructor or department for information.

FIN 1002 Beginning Finnish
5 credit(s); prereq 1001; Credit will not be granted if credit has been received for: FIN 4002; Instructor: Karvonen, Daniel
Description: In this course, the second half of the first-year language sequence in Finnish, the acquisition of basic proficiency in Finnish that began in FIN 1001 will continue in all four modalities: speaking, listening, reading, and writing. The main textbook for the course is “Supisuomea” (chapters 6-10), which is accompanied by a CD, video, and supplementary materials on the Internet. Students will be exposed to both the written and spoken varieties of Finnish, which can differ quite markedly from one another. Authentic materials reflecting Finnish culture (e.g., songs, movies, 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 4002 designator (see below) for 2 credits (and reduced tuition).
Style: 20% Lecture. Interactive exercises
Grading: 10% final exam, 21% reports/papers, 30% quizzes, 6%

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FIN 1004 Intermediate Finnish
5 credit(s); prereq 1003; Credit will not be granted if credit has been received for: FIN 4004;
Instructor: Karvonen,Daniel
Description: In this course, the second half of the second-year language sequence in Finnish, students' skills in reading, writing, speaking, and understanding will be further honed and refined. The main textbook for the course is “Elaman suolaa: Suomen kielen alkeita 2” (chapters 31-40). The cassette tape accompanying “Elaman suolaa” will be used in class, and students are also encouraged to listen to it in the language lab. Students will continue to learn both the written and spoken varieties of 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. This course will prepare students to take the Language Proficiency Exam (LPE), which will be taken near the end of the course. Qualified students may register for this course under the 4004 designator (see below) for 2 credits (and reduced tuition).
Style: 20% Lecture. Interactive exercises
Grading: 18% reports/papers, 14% quizzes, 5% in-class presentation, 30% class participation, 21% other evaluation. tests, 12% oral interviews
Exam Format: Short answer, essay, matching
credit has been received for: FIN 1004;
Instructor: Karvonen,Daniel
Description: In this course, the second half of the second-year language sequence in Finnish, students' skills in reading, writing, speaking, and understanding will be further honed and refined. The main textbook for the course is “Elaman suolaa: Suomen kielen alkeita 2” (chapters 31-40) which is supplemented by the optional text &quot;Finnish: An Essential Grammar. ” The cassette tape accompanying &quot;Elaman suolaa” will be used in class, and students are also encouraged to listen to it in the language lab. Students will continue to learn both the written and spoken varieties of 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. This course will prepare students to take the Language Proficiency Exam (LPE), which will be taken near the end of the course. Qualified students may register for this course under the 4004 designator (see below) for 2 credits (and reduced tuition).
Style: 20% Lecture. Interactive exercises
Grading: 18% reports/papers, 14% quizzes, 5% in-class presentation, 30% class participation, 21% other evaluation. tests, 12% oral interviews
Exam Format: Short answer, essay, matching
FIN 3012 Advanced Finnish
3 credit(s); prereq 3011;
Instructor: Karvonen,Daniel
Description: This course is the second half of the third-year language sequence in Finnish, and is designed to deepen and hone students' skills in oral and written expression in Finnish. Advanced grammatical constructions which are characteristic of written Finnish will be covered via class handouts and authentic Finnish texts, such as short stories and newspaper articles, which will form the basis for classroom discussions. Students will write three essays, do three short take-home exams, and complete a final project on a topic of their choice. .
Style: 20% Lecture, 80% Discussion.
Grading: 24% reports/papers, 6% special projects, 12% in-class presentation, 28% class participation, 30% other evaluation. three take-home quizzes
Exam Format: Short answer, essay
FIN 4002 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 1002;
Instructor: Karvonen,Daniel
Description: In this course, the second half of the first-year language sequence in Finnish, and is designed to deepen and hone students' skills in oral and written expression in Finnish. The main textbook for the course is “Supisuomea” (chapters 6-10), which is accompanied by a CD, video, and supplementary materials on the Internet. Students will be exposed to both the written and spoken varieties of Finnish, which can differ quite markedly from one another. Authentic materials reflecting Finnish culture (e.g., songs, movies, 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.
Style: 20% Lecture. Interactive exercises
Grading: 10% final exam, 18% reports/papers, 16% quizzes, 4% in-class presentation, 30% class participation, 12% other evaluation. tests, 10% oral interview
Exam Format: Short answer, essay, matching
FIN 4004 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 1004;
Instructor: Karvonen,Daniel
Description: In this course, the second half of the second-year language sequence in Finnish, students' skills in reading, writing, speaking, and understanding will be further honed and refined. The main textbook for the course is “Elaman suolaa: Suomen kielen alkeita 2” (chapters 31-40) which is supplemented by the optional text &quot;Finnish: An Essential Grammar. ” The cassette tape accompanying &quot;Elaman suolaa” will be used in class, and students are also encouraged to listen to it in the language lab. Students will continue to learn both the written and spoken varieties of 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. This course will prepare students to take the Language Proficiency Exam (LPE), which will be taken near the end of the course. Qualified students may register for this course under the 4004 designator (see below) for 2 credits (and reduced tuition).
Style: 20% Lecture. Interactive exercises
Grading: 18% reports/papers, 14% quizzes, 5% in-class presentation, 30% class participation, 21% other evaluation. tests, 12% oral interviews
Exam Format: Short answer, essay, matching
**Description:** This course examines the ecological, economic, and social principles that form the basis of Conservation Biology. The course is organized into three learning modules: 1) fundamental theories in the applicable disciplines; 2) Conservation Biology's principles and the major threats to biodiversity, and 3) an exploration of various "hot" topics, in detail, often with guest speakers.

**FW 4103 Principles of Wildlife Management**
3 credit(s); prereq Intro biology course; Instructor: Gutierrez, Ralph J
Description: Student may contact the instructor or department for information.

**FW 4200H Honors Seminar**
1 credit(s); prereq FW upper div honors, instr consent; Instructor: STAFF
Description: Current topics presented by faculty/students. Lecture/discussion.

**FW 4291 Independent Study: Fisheries**
1-5 credit(s), max credits 15, 3 repeats 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 repeat allowed; prereq instr 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 wildlife biology.
Style: special projects and individual directed study; visitation to field sites if appropriate
Grading: 100% reports/papers.

**FW 4401 Fish Physiology and Behavior**
2 credit(s); prereq 3136 or 5136 or instr consent; Instructor: Sorensen, Peter William
Description: Student may contact the instructor or department for information.

**FW 4555 Fisheries and Wildlife Ecology and Management:**
Field Trip
S-N only, 1 credit(s); prereq instr consent;
Instructor: Kapfer, Paul Michael
Description: Student may contact the instructor or department for information.

**FW 4701 Fisheries and Wildlife Problem Solving**
2 credit(s); prereq FW sr or grad student or instr consent;
Instructor: STAFF
Description: Management problem identification/analysis, information gathering/analysis, oral/written reporting. Selected management issues.

**FW 4801 Honors Research**
A-F only, 2 credit(s); prereq FW upper div honors, instr consent;
Instructor: STAFF
Description: Independent research project supervised by faculty member.

**FW 4802H Honors Research**
A-F only, 2 credit(s); prereq FW upper div honors, instr consent;
Instructor: STAFF
Description: Completion of honors thesis. Oral report.

**FW 5051 Analysis of Populations**
3 credit(s); prereq [[Biol 1001 or Biol 1009], [FW 4001 or Stat 3011 or Stat 5021]] or instr consent;
Instructor: Arnold, Todd W.
Description: This course will cover the basics of experimental design and sampling techniques as they relate to wildlife conservation and terrestrial ecology. We will examine methods for estimating population size, population change, and population vital rates (i.e., components of birth, death, immigration, and emigration rates). It is appropriate for seniors or graduate students in FWCB, EB, Cons Bio, ES, and others who have a basic understanding of ecology and statistics. The first hour of each class session will be lecture format and the remainder will involve discussion and/or hands-on problem solving.
Style: 65% Lecture, 30% Laboratory, 5% Student Presentation.
Grading: 17% mid exam, 50% reports/papers, 16% written homework. Final exam is non-cumulative.
Exam Format: Exams will consist of short answer, problem solving, and essay questions.

**FW 5392 Special Lectures: Wildlife**
1-5 credit(s), max credits 15, 3 repeats allowed; prereq Grad student or instr consent; Credit will not be granted if credit has been received for: FW 4392;
Instructor: Fulton, David C
Description: Student may contact the instructor or department for information.

**FW 5401 Fish Physiology and Behavior**
2 credit(s); prereq [[3136 or 5136], grad student] or instr consent;
Instructor: Sorensen, Peter William
Description: This course is taught together with FW4401 (see description above) but is intended for graduate students and has an extra writing requirement. Lecture topics include fish sensory systems, behavior, and communication; feeding, growth and bioenergetics; schooling and migration; endocrinology, reproduction and pheromones; and ecotoxicology. In addition, students are required to write a 5-10 page scientific review or research proposal on a topic of their choosing and to give a class presentation on that topic.
Style: 75% Lecture, 15% Discussion.
Grading: 17% mid exam, 50% final exam, 10% reports/papers, 10% in-class presentation, 10% class participation.
Exam Format: short answer/essay

**FW 5604W Fisheries Ecology and Management**
3 credit(s); prereq EEB 3603 or EEB 4601 or EEB 5601;
Meets CLE req of Environment Theme; meets CLE req of Writing Intensive;
Instructor: Newman, Raymond M
Description: This is a senior-level major and introductory graduate course; a background in resource ecology is assumed. The course provides a basic coverage of fisheries, ecology and management, with an emphasis on human intervention and regulation of use to achieve management objectives for managed species of interest. We will cover the tools of fisheries management that may be implemented to achieve specific objectives and goals and how to assess their efficacy. The course starts with a general coverage of applied limnology and fish ecology, followed by management approaches and planning, the development of an information base and identification of problems. Approaches to manage fishery populations and habitats will then be covered along with methods to assess management outcomes. Applications to specific fisheries will be demonstrated. A series of homework tasks and problems will be used to develop real-world problem solving skills; problem sets and readings from the primary literature will be discussed in periodic sessions. A paper, that outlines and critiques current management of specific fisheries resource and proposes new strategies, is required; the first draft will be graded and returned for final revision.
Style: 85% Lecture, 15% Discussion.
Grading: 16% mid exam, 22% final exam, 28% reports/papers, 20% class participation, 15% problem solving.
Exam Format: Combination - short answer, true/false, analysis,
FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 repeat allowed;
Instructor: Nelson,Kristen C
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 repeat 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 repeat 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 repeat 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 repeat 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 repeat 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 repeat allowed;
Instructor: Vondracek,Bruce
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 repeat 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 repeat 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 repeat 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 repeat allowed;
Instructor: Cuthbert,Francesca J
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 repeat allowed;
Instructor: Ankley,Gerald T
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 repeat allowed;
Instructor: Arnold,Todd W.
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 repeat allowed;
Instructor: Garshels,David L
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 repeat allowed;
Instructor: Del Giudice,Glenn David
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 repeat allowed;
Instructor: Mech PhD,L David
Description: Student may contact the instructor or department for information.

FW 8394 Research in Fisheries
1-4 credit(s), max credits 4, 1 repeat 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 repeat allowed;
Instructor: Smith,James L David
Description: Student may contact the instructor or department for information.
FW 8494 Research in Wildlife
1-4 credit(s), max credits 4, 1 repeat allowed; prereq instructor 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 repeat allowed; prereq instructor consent;
Instructor: Loegering, John P
Description: Student may contact the instructor or department for information.

FW 8494 Research in Wildlife
1-4 credit(s), max credits 4, 1 repeat allowed; prereq instructor consent;
Instructor: Cohen, Donald B
Description: Student may contact the instructor or department for information.

FW 8494 Research in Wildlife
1-4 credit(s), max credits 4, 1 repeat allowed; prereq instructor consent;
Instructor: Fulton, David C
Description: Student may contact the instructor or department for information.

FW 8494 Research in Wildlife
1-4 credit(s), max credits 4, 1 repeat allowed; prereq instructor consent;
Instructor: Starfield, Anthony Michael
Description: Student may contact the instructor or department for information.

FW 8494 Research in Wildlife
1-4 credit(s), max credits 4, 1 repeat allowed; prereq instructor 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 repeat allowed; prereq instructor consent;
Instructor: Franklin, Alan
Description: Student may contact the instructor or department for information.

FW 8494 Research in Wildlife
1-4 credit(s), max credits 4, 1 repeat allowed; prereq instructor consent;
Instructor: Loegering, John P
Description: Student may contact the instructor or department for information.

FW 8494 Research in Wildlife
1-4 credit(s), max credits 4, 1 repeat allowed; prereq instructor consent;
Instructor: Blair, Robert B
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 will address:
1. physiological function and metabolic fate of all six classes of nutrients that are ingested by active individuals in the attempt to improve athletic performance; 2. impact on physiology of ergogenic aids and various dietary supplements ingested by athletes, presenting an overview of the involvement of these components in fulfilling energy/recovery needs for continual and progressive athletic performance. A class orientation via UConnet and syllabus and other materials will be available on the class website the week before classes start. We cover 1 chapter a week. Weekly multiple choice quizzes are done online via the class website. Short answer critical thinking questions are submitted via the class website also. 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.
Style: 100% Web Based. Web based class
Grading: 50% quizzes, 50% other evaluation. short answer critical thinking questions
Exam Format: Quiz format is multiple choice

FSCN 1013 Dietary Supplements: scientific, regulatory, and cultural aspects
3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme;
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) Rational use of dietary supplements for health and sports performance; ethical decisions in use for athletic performance. 9) Use of supplements for weight loss. An online 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. Thereafter weekly homework and critical thinking questions are submitted and graded online via the class website. 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: Homework and critical thinking are in multiple parts, with short answers of a paragraph or two for each part

FSCN 1102 Food: Safety, Risks, and Technology
3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme;
Instructor: Labuza PhD, Theodore Peter
Description: I Introduction to the inherent risks and safety of the food supply and the use of public policy, and food technology to reduce those risks including the public perception of these risks. The course will survey microbiological, chemical and environmental hazards, government and industry controls used to ensure foods are safe. After a general review of risk the course will focus on hot issues including the new initiatives on
allergens, bio-terrorism, GMOs, obesity, trans fatty acids, Johness disease and health claims. The course will emphasize government regulations with respect to adulteration, food and misbranding as well as food safety. Thermal processing, high pressure and irradiation which will be described as examples of the technologies used in food processing to reduce risk and assure a safe food supply. This course satisfies the CLE Citizenship and Public Ethics theme and emphasizes the public policy process, critical thinking skills and internet use. There are 8-10 in class questions, two written assignments (scenario writing) and two in class open book quizzes. critical thinking skills and internet use. You will be made aware of the magnitude of the food safety issue and the use of public policy to manage inherent risk, as related to processing, distribution and preparation of food at home and in food service. We will cover methods used to control and maintain both safety and quality in the processing and distribution of foods.

Style: 60% Lecture, 20% Discussion. grading: 33% reports/papers, 67% quizzes. Exam Format: Short essays, critical thinking, evaluation of issues

FSCN 1112 Principles of Nutrition
3 credit(s); prereq High school [biology, chemistry]; Meets CLE req of Environment Theme;
Instructor: Croll,Jillian Kathleen
Description: Student may contact the instructor or department for information.

FSCN 1112 Principles of Nutrition
3 credit(s); prereq High school [biology, chemistry]; Meets CLE req of Environment Theme;
Instructor: Brady,Linda J
Description: This course is for all levels of students and will address: 1. essential nutrients needed from the diet; 2. major functions of nutrients and physiological changes with deficiency or excess; 3. digestion, absorption, and metabolism of nutrients; 4. eating programs; 5. scientific method and nutrition; 6. life cycle issues; 7. food safety issues; 8. issues of food and the environment. This course meets the CLE theme of ENVIRONMENT. This class is web enhanced. Most material covered in class lectures is available in the text and power points posted on the class website, but additional information, examples, and practice questions will be given in lecture. One to two questions on quizzes (out of 20 total) will be from material only covered in class. Students will be evaluated by weekly online chapter quizzes, a diet analysis and critical thinking questions about their diet analysis, and a final exam covering the environmental theme only. Prerequisite is high school biology, but college biology and chemistry are helpful, since nutrition is a science that is based on biology, physiology, and biochemistry, as well as more social aspects. Student evaluations are routinely around 5.5-6, but some students indicate that they find the material difficult.
Style: 90% Lecture, 10% Small Group Activities. small group discussion
Grading: 20% final exam, 40% other evaluation. Diet analysis and associated questions
Exam Format: multiple choice

FSCN 3615 Sociocultural Aspects of Food, Nutrition, and Health
3 credit(s); prereq 1112; Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core;
Instructor: Smith,Chery
Description: Socio-cultural aspects of regional and cultural diversity in food preferences and food behavior, food habits, demographics, lifestyles, food consumption and expenditures. Effect of socio-economic status, religious beliefs, age, and cultural meaning of food on food choices. Students will understand factors that influence eating behavior, particularly how socio-economic status, religious beliefs, age and gender, and ethnicity contribute to it. Additionally, they will be able to discuss how societal values influence eating patterns and contribute to health issues. Lastly, students will be able to describe how social scientists study, describe, and interpret information on dietary patterns through observations and class readings and discussions.

FSCN 4096 Professional Experience Program: Internship
A-F only, 1-3 credit(s), max credits 6, 6 repeats allowed;
prereq FScN undergrads, instr consent; UC only;
Instructor: Smith,David Eugene
Description: Student may contact the instructor or department for information.

FSCN 4121 Food Microbiology and Fermentations
3 credit(s); prereq BIOC 3021, [MICB 2032 or MICB 3301 or VPB 2032];
Instructor: O'Sullivan,Daniel J
Description: Student may contact the instructor or department for information.

FSCN 4122 Laboratory Methods in Food Microbiology and Fermentations
2 credit(s); prereq Concurrent enrollment 4121;
Instructor: O'Sullivan,Daniel J
Description: Student may contact the instructor or department for information.

FSCN 4291 Independent Study
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Undergrads, instr consent;
Instructor: STAFF
Description: Independent Study is for one-to-one faculty student work agreed upon food science related topics. Prior registration approval is necessary and can be obtained by contacting Sue P. at 624-6753. Contracts are used to outline the proposed projects.

FSCN 4332 Food Processing Operations
A-F only, 3 credit(s); prereq 4331 or BAE 4744;
Instructor: Reineccius,Gary A
Description: This course is a continuation of topics in food processing. This semester, topics will include fluid flow, pumping, heat and mass transfer, thermal processing and case studies.
Style: 50% Lecture, 50% Laboratory.
Grading: 30% mid exam, 30% final exam, 10% quizzes, 30% laboratory evaluation.
Exam Format: Problems and short answers

FSCN 4613 Experimental Nutrition
2 credit(s); prereq 4612, BioC 3021, Stat 3011;
Instructor: Gallaher,Daniel David
Description: This course provides a laboratory experience in chemical and biochemical methods of analysis of nutritional status. Students develop an understanding of the usefulness of various biochemical parameters in ascertaining nutritional status, become familiar with a variety of laboratory equipment and procedures, develop an understanding of the theory of operation of a number of laboratory instruments, and learn the principles involved in a number of chemical and biochemical procedures. There is one lecture and one laboratory period per week. The course is intended primarily for upper division dietetics and nutrition science majors and beginning nutrition graduate students. Students must have taken courses in biochemistry and physiology. A course in statistics is highly recommended.
Style: 25% Lecture, 5% Discussion, 70% Laboratory.
Grading: 20% mid exam, 30% final exam, 30% reports/papers, 20% problem solving.
Exam Format: Multiple choice

FSCN 4614 Community Nutrition
3 credit(s); prereq 1112; Meets CLE req of Cultural Diversity Theme;
Instructor: Smith,Chery
Description: Community-based nutrition issues will be explored, including nutrition risks associated with different age, sex, ethnic, and socioeconomic groups; community needs assessment; program planning and evaluation; and programs developed to address the needs and interests for people at different stages of the life cycle, ethnic or cultural backgrounds, and literacy levels.
Students will be able to describe the purpose and principles of community nutrition, the role of the nutritionists, and methods employed to gather information on the nutritional status of the multicultural American population. They will be able to describe how race, culture and socioeconomic status influence the nutritional risk factors associated with chronic illness and selected conditions (i.e. pregnancy, low birthweight infants, aging).

Students will be able to conduct a community needs assessment, identify and prioritize problems, and develop a culturally-appropriate nutrition program plan for people living in their community. Lastly, students will be able to characterize the major government - sponsored food and nutrition programs and will be able to refer members of the community to the appropriate program for services required.

FSCN 4666 Medical Nutrition Therapy II
A-F only, 3 credit(s); prereq 4665;
Instructor: Earthman, Carrie
Description: Student may contact the instructor or department for information.

FSCN 4732 Food and Nutrition Management
A-F only, 3 credit(s); prereq 3732, Mgmt 3001; Meets CLE req of Citizenship/Publ Ethics Theme;
Instructor: Marquard, Len
Description: Student may contact the instructor or department for information.

FSCN 5531 Grains: Introduction to Cereal Chemistry and Technology
2 credit(s); prereq Biol 1009, Chem 1022;
Instructor: Bunzel, Mirko
Description: Student may contact the instructor or department for information.

FSCN 8310 General Seminar
S-N only, 1 credit(s), max credits 2; prereq instr consent;
Instructor: O'Sullivan, Daniel J
Description: Student may contact the instructor or department for information.

FSCN 8318 Current Issues in Food Science
A-F only, 2 credit(s), max credits 4; prereq 4111, 4121, dept consent;
Instructor: Diez-Gonzalez, Francisco
Description: Student may contact the instructor or department for information.

FSCN 8330 Research Topics
1 credit(s), max credits 6, 6 repeats allowed;
Instructor: Viker, Susan Kay
Description: Student may contact the instructor or department for information.

FSCN 8331 Food Proteins
3 credit(s); prereq 4111, 4312;
Instructor: Ismail, Baraam
Description: Student may contact the instructor or department for information.

FSCN 8338 Antioxidants in Food: Practical Applications
2 credit(s); prereq 4111, Bioc 3021, food chemistry, organic chemistry, biochemistry;
Instructor: Csallany, A Saari
Description: Student may contact the instructor or department for information.

FSCN 8391 Independent Study: Food Science
1-4 credit(s), max credits 6, 6 repeats allowed; prereq instr consent;
Instructor: Viker, Susan Kay
Description: Student may contact the instructor or department for information.

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**Forest Resources**

**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;
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. Laboratory exercises provide practical experiences that complement the theory covered in lecture.
Style: 50% Lecture, 50% Laboratory.
Grading: 15% mid exam, 15% final exam, 55% laboratory evaluation, 15% other evaluation. Third Test
Exam Format: short answer, multiple choice

**FR 3203 Forest Fire and Disturbance Ecology**
A-F only, 3 credit(s); prereq [3104 or equiv], course fee;
Credit will not be granted if credit has been received for: FR 5203;
Instructor: Frelich, Lee E
Description: The ecology, history, management, and control of fire, wind, insect infestation, deer browsing, and other disturbances in forests, including disturbance regimes of boreal, northern hardwood, and other major forest types of North America. The influence of disturbance on wildlife habitat, urban/wildland interfaces, forest management, and stand/landscape dynamics. One-day field trip. Offered every spring.
Style: 60% Lecture, 20% Discussion. Small group exercises
Grading: 40% mid exam, 20% final exam, 20% problem solving, 10% other evaluation.
Exam Format: Short answer, essay, solve problems

**FR 3218 Measuring and Modeling Forests**
A-F only, 3 credit(s); prereq ESPN 3012 or STAT 3011; Credit will not be granted if credit has been received for: FR 5218;
Instructor: Burk, Thomas Edward
Description: Student may contact the instructor or department for information.

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This information is accurate as of 6/9/2008 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.
resources. Environmental implications of method/equipment choices. Selling timber. Sale design, layout, and administration. One all-day field trip in February.

**Style:** 70% Lecture, 5% Film/Video, 5% Small Group Activities, 10% Student Presentation, 10% Field Trips.

**Grading:** 20% mid exam, 20% final exam, 15% reports/papers, 45% written homework.

**Exam Format:** The two midterm take home exams are both short essay format. The final exam is a mixture of T/F, short answer, matching, and fill-in-the-blank questions.

FR 3471 Forest Planning and Management
A-F only, 3 credit(s); prereq Intro silviculture or concurrent registration in silviculture or instr consent ; Credit will not be granted if credit has been received for: FR 5471;

**Instructor:** STAFF

**Description:** Processes and techniques for scheduling forest management activities. Goals and objectives of landowners, industry, government, and society. Key issues in forest management and policies/regulations that influence management. Decision analysis: predicting forest outcomes, financial analysis, forest regulation, mathematical models, linear programming, tactical forest management, and economic analysis. Consideration of landscape-level management, desired future conditions, historical range of variability, wildlife management, carbon sequestration, resource monitoring, certification, and adaptive management. Offered every spring.

FR 3501 Arboriculture: Selection and Maintenance of Trees
3 credit(s); prereq [1101 or Hort 1012], Biol 2022;

**Instructor:** Johnson,Gary R

**Description:** This course is designed for the undergraduate student with a background in plant biology that desires more technical information on the selection, siting, and care of individual trees in the landscape. Topics include: species selection, planting and transplanting, pruning, plant health care management, diagnosis of problems, risk management, and remedial treatments. The textbook is the 4th edition of Arboriculture: Integrated Management of Landscape Trees, Shrubs, and Vines. Other assigned readings from journals and texts reserved in the Forestry library, as well as electronically forwarded articles. Classes are discussion/demonstration lectures with professionals as occasional lecturers. Exams are short-answer and problem solving in nature. Quizzes are brief and based on reading assignments. Lab exercises are pragmatic and problem-solving.

**Style:** 60% Lecture, 10% Discussion, 20% Demonstration, 10% Guest Speakers. Demonstration

**Grading:** 10% mid exam, 10% final exam, 15% reports/papers, 35% quizzes, 20% written homework, 10% additional semester exams. 3rd exam

**Exam Format:** Short-answer, problem solving

FR 3612 Silviculture and Timber Harvesting Practices in Minnesota
1 credit(s); prereq Forest ecology, managing forest ecosystems: silviculture; Credit will not be granted if credit has been received for: FR 5612;

**Instructor:** Blinn,Charles R

**Description:** Silvicultural and harvesting practices are driven primarily by landowner objectives and site and stand restrictions. This field based course focuses on silvicultural and timber harvesting practices of different forest species on various types of sites throughout Minnesota. The first field tour will occur on January 30 - 31 in southeastern Minnesota. The second field tour is scheduled for February 7 - 8 in northern Minnesota. The last class meeting, a discussion of questions about the field trips, will occur in March or April.

**Style:** 10% Discussion, 90% Field Trips. The first field tour will occur on January 30 - 31 in southeastern Minnesota. The second field tour is scheduled for February 7 - 8 in northern Minnesota. The last class meeting, a discussion of questions about the field trips, will occur in March.

**Grading:** 100% reports/papers.

FR 4200H Honors Seminar
A-F only, 1 credit(s); prereq FR upper division honors, instr consent ;

**Instructor:** STAFF

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

FR 4293 Directed Study
1-5 credit(s), max credits 15, 3 repeats allowed; prereq instr consent ;

**Instructor:** STAFF

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

FR 4501 Urban Forest Management: Managing Greenspaces for People
3 credit(s); prereq [1101, 3501, Ent 4251, PIPa 3003, [UF major or minor]] or instr consent ; Credit will not be granted if credit has been received for: FR 5501; Meets CLE req of Citizenship/Publ Ethics Theme;

**Instructor:** Johnson,Gary R

**Description:** This course is designed for upper level undergraduate and graduate students in urban forestry, forestry, natural resources, landscape architecture, landscape design and planning curriculi. This is a management course with less emphasis on tree care than FR 3501. Topics of study include: risk assessment and management; inventorying and developing maintenance programs; legal perspectives of urban forest management; urban user preferences; minimizing green and gray infrastructure conflicts; protecting the resources during development and urban expansion; storm preparedness and response.

**Style:** 40% Lecture, 20% Discussion, 5% Student Presentation, 15% Demonstration, 20% Guest Speakers.

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

FR 4801H Honors Research
A-F only, 2 credit(s); prereq FR upper division honors, instr consent ;

**Instructor:** STAFF

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

FR 4802H Honors Research
A-F only, 2 credit(s); prereq FR upper division honors, instr consent ;

**Instructor:** STAFF

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

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 natural resources. Data structures, sources, collection, and quality. Lab exercises introduce geodesy, map projections, spatial analyses, and cartographic modeling.

FR 5146 Science and Policy of Global Environmental Change
3 credit(s), max credits 4, 1 repeat allowed; prereq 3104 or Biol 3407 or equiv; Credit will not be granted if credit has been received for: EEB 5146; Meets CLE req of Environment Theme;

**Instructor:** Hobbie,Sarah E

**Description:** Through readings, lectures, discussions, and presentations this course will introduce the critical issues underpinning global change and its biological implications. The course will examine current scientific literature in exploring evidence for human-induced global change and its potential effects on a wide range of biological processes, focusing on (but not limited to) terrestrial ecosystems. We will also examine some of the economic drivers, economic consequences, and political processes related to global change, including local, national and...
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: Bauer, Marvin E
Description: The course provides students with a working knowledge of the principles and applications of remote sensing. It provides a survey of the concepts and techniques of remote sensing and image analysis for natural resource inventory and mapping, land use analysis, and monitoring natural and environmental resources. Both photographic and digital sensing approaches are considered. The laboratory provides hands-on experience, including a practical/team project, in interpretation of aerial photographs and an introduction to digital image analysis techniques. The course will provide students from any natural resources, geography, agriculture or biology discipline an understanding of remote sensing systems and their applications to measuring, analyzing and managing Earth resources.
Style: 60% Lecture, 40% Laboratory.
Grading: 30% mid exam, 30% final exam, 5% reports/papers, 20% special projects, 15% laboratory evaluation.
Exam Format: Multiple choice
FR 5612 Silviculture and Timber Harvesting Practices in Minnesota
1 credit(s); prereq: Forest ecology, managing forest ecosystems: silviculture; Credit will not be granted if credit has been received for: FR 3612;
Instructor: Blinn, Charles R
Description: Silvicultural and harvesting practices are driven primarily by landowner objectives and site and stand restrictions. This field-based course focuses on silvicultural and timber harvesting practices of different forest species on various types of sites throughout Minnesota. The first field tour will occur on January 30-31 in southeastern Minnesota. The second field tour is scheduled for February 7-8 in northern Minnesota. The last class meeting, a discussion of questions about the field trips, will occur in March or April.
Style: 10% Discussion, 90% Field Trips. The first field tour will occur on January 30-31 in southeastern Minnesota. The second field tour is scheduled for February 7-8 in northern Minnesota. The last class meeting, a discussion of questions about the field trips, will occur in March.
Grading: 100% reports/papers.

FR 5700 Colloquium in Natural Resources
1-3 credit(s), max credits 3, 1 repeat allowed; prerequisite instructor consent;
Instructor: STAFF
Description: Colloquium in specialized topics in natural resources.
Style: 40% Lecture, 30% Discussion.
Grading: 50% reports/papers, 30% special projects, 10% in-class presentation, 10% class participation.
Exam Format: essay

FR 8101 Research Problems: Physiological Ecology
1-5 credit(s), max credits 10, 10 repeats allowed; prerequisite instructor consent;
Instructor: Reich, Peter Bernard
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 repeat 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 repeat allowed;
Instructor: Ekman, 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 repeat 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 repeat allowed;
Instructor: Montgomery, Rebecca Anne
Description: Student may contact the instructor or department for information.

FR 8105 Research Problems: Silviculture
1-5 credit(s), max credits 5, 1 repeat allowed;
Instructor: Gilmore, Daniel 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 repeat allowed;
Instructor: Johnson, Gary R
Description: Student may contact the instructor or department for information.

FR 8107 Seminar: Forest Resources
1 credit(s);
Instructor: Thompson, Jerrilyn L
Description: Student may contact the instructor or department for information.

FR 8201 Research Problems: Forest Economics
1-5 credit(s), max credits 5, 1 repeat allowed;
Instructor: Hoganson, Howard M
Description: Student may contact the instructor or department for information.

FR 8202 Research Problems: Forest Biometry and Measurements
1-5 credit(s), max credits 5, 1 repeat allowed;
Instructor: Ek, Alan Ryan
Description: Student may contact the instructor or department for information.

FR 8203 Research Problems: Forest Recreation
1-5 credit(s), max credits 5, 1 repeat allowed;
Instructor: Anderson, Ph.D., Dorothy Helen
Description: Student may contact the instructor or department for information.

FR 8204 Research Problems: Forest Recreation
1-5 credit(s), max credits 5, 1 repeat allowed;
Instructor: Schneider, Ingrid Eleanor
Description: Student may contact the instructor or department for information.

This information is accurate as of 6/9/2008 at 11:00 PM and is subject to change. Access the most current information in the on-line Course Guide at http://onestop.umn.edu. IMPORTANT: Before you attend the first class, verify the room location in the on-line Class Schedule.
FR 8203 Research Problems: Forest Recreation
1-5 credit(s), max credits 5, 1 repeat allowed;
Instructor: Gartner,Bill
Description: Student may contact the instructor or department for information.

FR 8204 Research Problems: Forest Policy
1-5 credit(s), max credits 10, 4 repeats allowed;
Instructor: Nelson,Kristen C
Description: Student may contact the instructor or department for information.

FR 8204 Research Problems: Forest Policy
1-5 credit(s), max credits 10, 4 repeats allowed;
Instructor: Baughman,Melvin J.
Description: Student may contact the instructor or department for information.

FR 8204 Research Problems: Forest Policy
1-5 credit(s), max credits 10, 4 repeats 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 10, 4 repeats 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 10, 4 repeats allowed;
Instructor: Becker,Dennis R
Description: Student may contact the instructor or department for information.

FR 8205 Research Problems: Spatial Data Analysis
1-5 credit(s), max credits 10, 10 repeats allowed; prereq instr consent;
Instructor: Bauer,Marvin E
Description: Student may contact the instructor or department for information.

FR 8205 Research Problems: Spatial Data Analysis
1-5 credit(s), max credits 10, 10 repeats allowed; prereq instr consent;
Instructor: Bolstad,Paul V
Description: Student may contact the instructor or department for information.

FR 8206 Research Problems: Forest Management
1-5 credit(s), max credits 5, 1 repeat allowed;
Instructor: Hoganson,Howard M
Description: Student may contact the instructor or department for information.

FR 8206 Research Problems: Forest Management
1-5 credit(s), max credits 5, 1 repeat allowed;
Instructor: Blinn,Charles R
Description: Student may contact the instructor or department for information.

FR 8207 Economic Analysis of Natural Resource Projects
A-F only, 2 credit(s); prereq instr consent;
Instructor: Kilgore,Mike
Description: Student may contact the instructor or department for information.

FR 8207 Economic Analysis of Natural Resource Projects
A-F only, 2 credit(s); prereq instr consent;
Instructor: Becker,Dennis R
Description: Student may contact the instructor or department for information.

FR 8207 Economic Analysis of Natural Resource Projects
A-F only, 2 credit(s); prereq instr consent;
Instructor: Suh,Sangwon
Description: Student may contact the instructor or department for information.

FR 8208 Research Problems: Environmental Learning and Leadership
1-5 credit(s), max credits 5, 1 repeat allowed; prereq instr consent;
Instructor: Eckman,Marlynn
Description: Student may contact the instructor or department for information.

FR 8208 Research Problems: Environmental Learning and Leadership
1-5 credit(s), max credits 5, 1 repeat allowed; prereq instr consent;
Instructor: Anderson PhD,Dorothy Helen
Description: Student may contact the instructor or department for information.

FR 8208 Research Problems: Environmental Learning and Leadership
1-5 credit(s), max credits 5, 1 repeat allowed; prereq instr consent;
Instructor: Carlson,Stephan Paul
Description: Student may contact the instructor or department for information.

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**French**

260 Folwell Hall

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**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 further information on placement, see your advisor or contact the Department of French and Italian. FREN 1001 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 1002 Beginning French

5 credit(s); prereq FREN 1001 or equiv; Credit will not be granted if credit has been received for: FREN 4022;
Instructor: STAFF
Description: Fren 1002 is intended for students who have completed FREN 1001 or the equivalent. In this course students build on the communicative speaking, listening, reading and
FREN 1003 Intermediate French
5 credit(s); prereq 1002 or Entrance Proficiency Test;
Instructor: STAFF
Description: This course is designed for students who have completed Fren 1002 or 1022 with a C- or better or have successfully passed the EPT (Entrance Proficiency Test) for this level. In this course students will review language structures acquired in beginning French. Students will expand their speaking, writing, listening, reading skills while furthering their awareness and knowledge of the cultures of the Francophone world. Topics introduced in this course will include commerce, youth issues, transportation, technology, telecommunications and the media. The textbook Interaction, 7th ed. includes contemporary informational readings, historical information, and literary texts. The textbook is accompanied by a workbook and web-based audio materials that are designed to be used by students outside of class. In this text students will learn material from Chapters 1-3, 4-5. Several class sessions will allow students to work with audio-visual resources to develop their listening and cultural competence, and with authentic web-based resources to develop their reading skills and expand their cultural knowledge. Students will become more sophisticated readers of literary texts (from the Francophone world including France) as they work with a selection of 19th- and 20th-century literary texts. The textbook is accompanied by a workbook (Quia) with a variety of practice activities including listening ones that are designed to be used by students outside of class. Grammar is covered in the homework assignments and reinforced in class with a variety of pair and group work. Expect an average of 2 hours of outside preparation for each class session hour.
Style: Mostly discussion and student involvement in pair/group activities.
Grading: 15% final exam, 20% reports/papers, 8% quizzes, 8% class participation, 30% other evaluation. written exams, 15% oral exams, 5% workbook exercises
Exam Format: Exams assess a student's proficiency in speaking, listening, reading and writing. Oral exams are administered in pairs and written exams involve multiple choice questions, sentence completion and short essay writing.

FREN 1022 Accelerated Beginning French
5 credit(s); prereq 2 or more yrs high school French;
Instructor: STAFF
Description: 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 studies of French the Fren 1022 course begins with a review of Fren 1001 materials (Ch. preliminaire through Ch. 6 of "Deux Mondes" 5th ed.) followed by materials introduced in Fren 1002 (Ch. 7 through Ch. 13). In other words, the course allows you to learn first-year materials in one semester. It offers a review of basic French grammar, vocabulary and themes before introducing you to second-semester materials. Upon entering this course students should be familiar with basic vocabulary relating to daily life, present and past tenses. Past tenses will be reviewed. The course may appear intensive for about the first three weeks during the accelerated review of Fren 1001 material, but it will proceed to a regular pace after the review period. The text, "Deux Mondes," 5th ed., is accompanied by an electronic workbook (Quia) with a variety of practice activities including listening ones that are designed to be used by students outside of class. Grammar is covered in the homework assignments and reinforced in class with a variety of pair and small-group activities. Since the majority of class is devoted to communicative speaking and listening activities, class attendance is fundamental.
Style: Combination of whole-class and small-group activities.
Grading: 15% final exam, 12% reports/papers, 8% special projects, 10% quizzes, 35% other evaluation. written exams; 12% oral tests; 8% workbook exercises
Exam Format: Exams assess a student's proficiency in speaking, listening, reading and writing. Oral exams are administered in pairs and written exams involve multiple choice questions, sentence completion and short essay writing.
conversation. This course is designed for non-native speakers of French and is a required course for students completing a French major under seminars. 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. 8 audio recordings

Exam Format: short answer, multiple choice

FREN 3015 Advanced French Grammar and Communication
4 credit(s); prereq 1004 or equiv or instr consent;
Instructor: STAFF
Description: Fren 3015 is the first in a two-course sequence (with 3016) which combines an intensive review of grammar with a special focus on the articulation and organization of ideas through writing, reading, 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 at least 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 3016 Advanced French Composition and Communication
4 credit(s); prereq 3015 or equiv or instr consent;
Instructor: STAFF
Description: Fren 3016 is the second in a two-course sequence (with 3015) which combines an intensive review of grammar with a special focus on the articulation and organization of ideas through writing, reading, and textual analysis. In 3016, students will develop skills in a variety of writing forms (e.g. compte rendu, argumentative essay, film scene analysis) while exploring selected cultural themes through written texts and film. Course requirements include written exams as well as regular writing assignments, which usually involve at least one rewriting. Students who do not receive a grade of B or better in 3015 (or equivalent course) are strongly encouraged to repeat 3015 before taking 3016.

Style: Language instruction
Grading: 50% written homework, 10% class participation.
Exam Format: Grammar exercises, essay

FREN 3101W Introduction to French Literature
4 credit(s); prereq 3015 or equiv; Meets CLE req of Literature Core; meets CLE req of Writing Intensive;
Instructor: STAFF
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 theories 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.

Style: 60% Lecture, 40% Discussion.
Grading: 15% mid exam, 60% reports/papers, 15% class participation.
Exam Format: essay

FREN 3140 Topics in Medieval and Renaissance Literature
3 credit(s), max credits 9, 3 repeats allowed; prereq 3101;
Instructor: Brown, Mary Frances
Description: Student may contact the instructor or department for information.

FREN 3260 Dramas of Culture: 20th-Century French and Francophone Theater
3 credit(s), max credits 9, 3 repeats allowed; prereq 3101;
Instructor: Brewer, Maria M
Description: Student may contact the instructor or department for information.

FREN 3350 Topics in Literature
3 credit(s), max credits 9, 3 repeats allowed; prereq 3101;
Instructor: STAFF
Description: Nineteenth-Century French literature is littered with ?coming of age? stories (romans d?apprentissage, d?education, de formation), accounts of young individuals obtaining for themselves a ?real world? education. This course explores the evolution of this genre over the course of the nineteenth century, paying special attention to the many different itineraries negotiated between individuals and society. Our goal is to unpack a selection of these educational itineraries by exploring the various elements that make up these mythical rites of passage: provincialism, travel, age, pedagogy and destinations. In addition, these works provide a lens through which to view the many social and political events that form the historical context of the nineteenth century: romanticism, revolutions, urbanization, capitalism, imperialism and mass culture. Using Mircea Eliade and Levi-Strauss, we will also examine the various elements of this literary rite of passage. Our companions de route for the semester will be selected from the following: Balzac, Stendhal, Baudelaire, Hugo, Verne, Zola, Bruno, Sand and Maupassant.

FREN 3531 Sociolinguistics of French
3 credit(s); prereq 3015, Ling 3001 or instr consent; Credit will not be granted if credit has been received for: FREN 5531;
Instructor: Kerr, Betsy Jean
Description: All languages show variation when used in diverse contexts. After a brief introduction to the basic principles of language variation, we will consider the development and current state of linguistic ideology in France (e.g. what is the Academie Francaise, why is it important?) and how this ideology plays out in some current linguistic debates such as the predominance of anglicisms in contemporary French. We will consider the diverse varieties of French that correspond to the various locations where French is spoken, with some attention to social and stylistic differences as well. Starting with regional differences within France, our itinerary will gradually move away from the metropole: first Belgium and Switzerland; then Canada, where we will spend some time tracing the history and current situation of French within the English-dominated North American continent; a brief look at French-based creoles and French in Africa; and finally, French in New England and in Louisiana. Our approach will be both external (what are the historical/cultural events and contexts that have affected language use?) and internal (what are the actual linguistic features that distinguish a particular variety of the language?). The course will present a broad survey; students will choose a topic of interest to research in depth for an in-class presentation and a final paper. Taught in French. Prereq: Fren 3015 or equivalent. Ling 3001 strongly recommended, may be taken concurrently.

Style: 30% Lecture, 70% Discussion.
Grading: 25% mid exam, 25% final exam, 30% special projects, 20% class participation.
Exam Format: short answer, essay, limited true-false

FREN 3650 Topics in French/Francophone Cultures
3 credit(s), max credits 9, 3 repeats allowed; prereq 3015;
Instructor: Abderrezak, Hakim
Description: Student may contact the instructor or department for information.
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 1022 which
provides students with an accelerated review of Fren 1001
material followed by material covered in Fren 1002. For further
information on placement, see your advisor or contact the
Department of French and Italian. Fren 1001 introduces students
to the four language skills: speaking, writing, listening and
reading, and Francophone cultures. Topics include everyday
issues (self, family, housing, typical student activities, etc.).
The text, “Deux Mondes,” 5th 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 learn materials from
“Premiere Etape” through Ch. 6. Grammar is covered in the
homework assignments and reinforced in class with a variety of
pair and small-group activities. Since the majority of class is
devoted to communicative listening and speaking activities, class
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, 35% other evaluation, written
exams; 12% oral tests; 8% workbook exercises
Exam Format: All exams evaluate listening, vocabulary, grammar, reading and writing.

FREN 4002 Beginning French
2 credit(s); prereq Grad student;
Instructor: STAFF
Description: Fren 1002 is intended for students who have
completed Fren 1001 or the equivalent. In this course students
build on the communicative speaking, listening, reading and
writing skills developed in first-semester French and on their
knowledge of the Francophone world. Topics introduced in this
course include: food, geography, travel, education, health,
environment, the media, contemporary societal issues. The text,
“Deux Mondes,” 5th 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 main textbook students will learn material from Ch. 7
through Ch. 13. Grammar is covered in the homework
assignments and reinforced in class with a variety of pair and
small-group activities. Since the majority of class is devoted to
communicative speaking and listening tasks, 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
Exam Format: Exams assess the student’s proficiency in
speaking, listening, reading and writing. Oral exams are
administered in pairs and written exams involve multiple choice
course questions, sentence completion and short essay writing.

FREN 4003 Intermediate French
2 credit(s); prereq Grad student;
Instructor: STAFF
Description: This course is designed for students who have
completed Fren 1002 or 1022 with a C- or better or who have
successfully passed the EPT (Entrance Proficiency Test) for this
level. In this course students will review language structures
acquired in beginning French. Students will expand their
speaking, writing, listening, reading skills while furthering their
awareness and knowledge of the cultures of the Francophone
world. Topics introduced in this course will include commerce,
youth issues, transportation, technology, telecommunications
and the media. The textbook Interaction, 7th ed. includes
contemporary informational readings, historical information, and
literary texts. The textbook is accompanied by a workbook and
web-based audio materials that are designed to be used by
students outside of class. In this text students will learn material
from Chapters 1-3, 7, 4-5. Several class sessions will allow
students to work with audio-visual resources to develop their
listening and cultural competence, and with authentic web-based
resources to develop their reading skills and expand their cultural
knowledge. Students will become more sophisticated readers of
literary texts (from the Francophone world including France) as
they work with a selection of 19th and 20th-century literary
readings. Intermediate language courses involve regular student
interactions, partner activities and group work. Expect an
average of 2 hours of outside preparation for each class session
hour.
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 designed for students who have
completed Fren 1003 or the equivalent. In this course students
build on the communicative speaking, listening, reading and
writing skills acquired during the first three semesters of French while
expanding cultural knowledge. Emphasis is placed on reading,
writing and culture. Themes addressed in this course include
cinema, transportation and technology, education, leisure, and
the francophone world. The text, “Interaction” 6th ed., includes
contemporary informational readings, historical information, and
literary texts. In this text students will learn material from Ch. 6
through Ch. 10. Audio-materials to accompany the workbook are
available on the course website for use outside the classroom.
Writing skills will be developed through process-writing essays.
Several class sessions will allow students to work with
audio-visual resources to develop their listening and culture
skills, and to work with authentic web-based resources to
develop their reading skills and cultural competence. Students
will become more sophisticated readers of literary texts (from
France and the francophone world) as they work with a selection
of 19th and 20th-century literary readings compiled in

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: Brown, Mary Frances
Description: In this course, 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, and
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.

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: Brown, Mary Frances
Description: In this course, 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, and
culture). The topic must be approved by the instructor, and the
research paper will be written in consultation with the lead
instructor. Students must substitute 3 credits in advanced electives
numbering 3111 or above in the French major for Fren 4101.
This information is accurate as of 6/9/2008 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 2008.
Color
3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

GWSS 3306 Pop Culture Women
3 credit(s);
Instructor: STAFF
Description: Contemporary U.S. feminism as political/intellectual movement. Ways in which movement has been represented in popular culture.

GWSS 3390 Topics: Visual, Cultural, and Literary Studies
3 credit(s);
Instructor: Desai, Jigna
Description: Student may contact the instructor or department for information.

GWSS 3404 International Lesbian and Queer Studies
3 credit(s); prereq 1001 or 1002 or 3001 or instr consent; Credit will not be granted if credit has been received for: GLBT 3404;
Instructor: Deutsch, Tracey A
Description: Student may contact the instructor or department for information.

GWSS 3408 Women in Modern America
3 credit(s); Credit will not be granted if credit has been received for: HIST 3348; Meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core;
Instructor: Deutsch, Tracey A
Description: Student may contact the instructor or department for information.

GWSS 4402 Rebels, Radicals, and Revolutionaries: History of Western Feminisms
3 credit(s), max credits 4, 1 repeat allowed;
Instructor: Torres PhD, Eden E.
Description: Student may contact the instructor or department for information.

GWSS 4505 Legislative Internship
3 credit(s); prereq [4504 or equiv or grad student], dept consent;
Instructor: Brewington, Claudia Keagy
Description: Discussion group and learning community for students working as interns for a Minnesota legislator during the year’s legislative session.

GWSS 4690 Topics: Women, Society, and Race in the United States
3 credit(s), max credits 6;
Instructor: Isako PhD, Zenele
Description: This is an interdisciplinary course that critically examines the activisms of people of color in urban America. This course is comprised of writings that have emerged from feminist studies, queer studies, political science, urban anthropology and political geography. In this course, the spatial dimensions of political agency are explored as well as the discursive strategies that make the activisms of people of color both compelling and possible. We will engage topics as diverse as hip hop, immigration, poverty, the criminalization of black and brown youth, gender-based violence and globalization. This course aims to stimulate new theorizing on space and identity, as well as foster policy-oriented solutions to contemporary urban problems from a social justice perspective.
Grading: 20% final exam, 30% reports/papers, 30% special projects, 20% attendance.

GWSS 5690 Topics: Women, Society, and Race in the United States
3 credit(s), max credits 6;
Instructor: Isako PhD, Zenele
Description: This is an interdisciplinary course that critically examines the activisms of people of color in urban America. This course is comprised of writings that have emerged from feminist studies, queer studies, political science, urban anthropology and political geography. In this course, the spatial dimensions of political agency are explored as well as the discursive strategies that make the activisms of people of color both compelling and possible. We will engage topics as diverse as hip hop, immigration, poverty, the criminalization of black and brown youth, gender-based violence and globalization. This course aims to stimulate new theorizing on space and identity, as well as foster policy-oriented solutions to contemporary urban problems from a social justice perspective.
Grading: 20% final exam, 30% reports/papers, 30% special projects, 20% attendance.

General Dentistry
15-209 MoosT

GEND 5153 Advanced General Dentistry Seminar III
S-N only, 2-10 credit(s), max credits 10, 1 repeat allowed;
Instructor: Gambucci, James Robert
Description: Student may contact the instructor or department for information.

GEND 5256 Advanced General Dentistry Clinic III
S-N only, 5-15 credit(s), max credits 15, 1 repeat allowed;
Instructor: Gambucci, James Robert
Description: Student may contact the instructor or department for information.

GEND 5263 Advanced General Dentistry Clinical Administration III
S-N only, 1-10 credit(s), max credits 10, 1 repeat allowed;
Instructor: Gambucci, James Robert

This information is accurate as of 6/9/2008 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.
GEND 5266 Advanced General Dentistry Clinic VI  
S-N only, 1-15 credit(s), max credits 15, 1 repeat allowed;  
Instructor: Gambucci, James Robert  
Description: Student may contact the instructor or department for information.

GEND 6153 General Practice Seminar III  
S-N only, 2-10 credit(s), max credits 10, 1 repeat allowed;  
Instructor: Gambucci, James Robert  
Description: Student may contact the instructor or department for information.

GEND 6256 General Practice Clinic III  
S-N only, 10-15 credit(s), max credits 15, 1 repeat allowed;  
Instructor: Gambucci, James Robert  
Description: Student may contact the instructor or department for information.

GEND 6263 General Practice Clinical Administration III  
S-N only, 5-10 credit(s), max credits 10, 1 repeat allowed;  
Instructor: Gambucci, James Robert  
Description: Student may contact the instructor or department for information.

GEND 6266 General Practice Clinic VI  
S-N only, 10-15 credit(s), max credits 15, 1 repeat allowed;  
Instructor: Gambucci, James Robert  
Description: Student may contact the instructor or department for information.

GCD 3022 Genetics  
3 credit(s); prereq Biol 1002 or 1009; not for biology majors; Credit will not be granted if credit has been received for: BIOL 4003;  
Instructor: Kirkpatrick, David T  
Description: Student may contact the instructor or department for information.

GCD 4015 Genetics Laboratory  
2 credit(s); prereq 3022 or Biol 4003 or BioC 4332;  
Instructor: FrancoPhD, Peter John  
Description: Student may contact the instructor or department for information.

GCD 4015 Genetics Laboratory  
2 credit(s); prereq 3022 or Biol 4003 or BioC 4332;  
Instructor: Merriman PhD, Peter Jason  
Description: Student may contact the instructor or department for information.

GCD 4025 Cell Biology Laboratory  
2 credit(s); prereq Biol 4004 or instr consent;  
Instructor: Norrander PhD, Jan Marie  
Description: Student may contact the instructor or department for information.

GCD 4034 Molecular Genetics  
3 credit(s); prereq Biol 4003, Biol 4004; advanced bioscience undergrad recommended;  
Instructor: Simon, Jeffrey A  
Description: Molecular genetics of eukaryotes. Topics include gene structure and organization, regulation of gene expression, RNA splicing and processing, chromatin structure and function, chromosome biology, and comparative genome analysis. The course will cover techniques used in molecular genetics research such as recombinant DNA technology, targeted mutations, genome sequencing and manipulation, gene chip technology, and generation of transgenic organisms. The course will also detail the major eukaryotic model systems used in molecular genetics research, including fungi, nematodes, insects, and mice. Assigned readings will be from the textbook “Molecular Biology” (third edition by Robert F. Weaver) and will also include 8-12 articles from the primary research literature. Emphasis will be placed on evaluating and interpreting experimental data and approaches that reveal molecular genetic mechanisms. The course is intended for advanced bioscience undergraduates including those considering postgraduate training in biological or biomedical sciences.

GCD 4111 Histology: Cell and Tissue Organization  
4 credit(s); prereq Biol 4004 or instr consent;  
Instructor: Bauer, G Eric  
Description: Structure and function of human tissues and organs. Lectures present electron microscopy, light microscopy, cell physiology, and cell biology of the major organ systems. Labs concentrate on light and electron microscopy of human cells, tissues, and organs. There are 3 lecture exams and 3 lab practical exams.

GCD 4134 Endocrinology  
3 credit(s); prereq Biol 3211 or Biol/BioC 3021 or BioC 4331 or instr consent;  
Instructor: Iwanij, Victoria  
Description: Student may contact the instructor or department for information.

GCD 4143 Human Genetics  
3 credit(s); prereq 3022 or Biol 4003 or instr consent;  
Instructor: Oetting, William Starr  
Description: Student may contact the instructor or department for information.

GCD 4151 Molecular Biology of Cancer  
3 credit(s); prereq Biol 4003;  
Instructor: Bardwell, Vivian June  
Description: The course will focus on the regulatory pathways involved in directing the normal development of eukaryotic organisms and how disruption of these pathways can lead to abnormal cell growth and cancer. Additional topics will include causes, detection, treatment, and prevention of cancer. This course will be co-taught by Vivian Bardwell and David Largaespada. Text: Principles The Biology of Cancer By Robert Weinberg. Target audience: upper level undergraduates and non-major graduate students.  
Style: 95% Lecture, 5% Discussion.  
Grading: 63% mid exam, 37% final exam.  
Exam Format: multiple choice, short answer, short essay.

GCD 4794W Directed Research: Writing Intensive  
S-N only, 1-6 credit(s), max credits 42, 7 repeats allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;  
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 repeats allowed; prereq instr consent, dept consent; Meets CLE req of Writing Intensive;  
Instructor: Olszewski, Neil E  
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Gale, Cheryl Ann
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Largaespada, David Andrew
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Lohr, Jamie Lynne
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Tam PhD, Patty
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Downs Jr Jr, Levi 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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Zarkower, David 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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Shimizu, Yoji
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Wei, Li-Na
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Rougvie, Ann E
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Heimpel, George Eugene
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Petryk, Anna
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Zhou, Xianzheng
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Wright, Robin
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Taylor PhD, Doris
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Ott, Harald
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: Greenstein, David I.
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 repeats allowed;
prereq instr consent , dept consent ; Meets CLE req of Writing Intensive;
Instructor: McIvor, R. Scott
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 repeats allowed;
prereq instr consent , dept consent ;
Instructor: Knoblauch,Sue
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 repeats allowed;
prereq instr consent , dept consent ;
Instructor: Tam PhD,Patty
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 repeats allowed;
prereq instr consent , dept consent ;
Instructor: Simmons,Michael J
Description: Student may contact the instructor or department for information.

GCD 8912 Genetic Counseling in Practice
S-N only, 1-6 credit(s), max credits 42, 7 repeats allowed;
prereq instr consent , dept consent ;
Instructor: Largaespada,David Andrew
Description: Student may contact the instructor or department for information.

GCD 8008 Mammalian Gene Transfer and Expression
A-F only, 2 credit(s); prereq instr consent ;
Instructor: Greenstein,David I.
Description: Student may contact the instructor or department for information.

GCD 8161 Advanced Developmental Biology
3 credit(s); prereq 8121 or Biol 7121, [8002], [8131] or Biol 4331 or instr consent ;
Instructor: Koob,Michael 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 repeats allowed;
prereq instr consent , dept consent ;
Instructor: Chen,Wei
Description: Student may contact the instructor or department for information.

GCD 8073 Advanced Human Genetics
3 credit(s); prereq 8121 or Biol 4003, BioC 3021 or BioC 4331 or instr consent ;
Instructor: Greenstein,David I.
Description: Student may contact the instructor or department for information.

GCD 8131 Advanced Genetics
3 credit(s); prereq 3022 or Biol 4003, BioC 3021 or BioC 4331 or instr consent ;
Instructor: Greenstein,David I.
Description: Student may contact the instructor or department for information.

GCD 8900 Seminar
S-N only, 1 credit(s), max credits 4, 4 repeats allowed;
prereq Grad MCDG major or instr consent ;
Instructor: Hays,Tom S
Description: Student may contact the instructor or department for information.

GCD 8900 Seminar
S-N only, 1 credit(s), max credits 4, 4 repeats allowed;
prereq Grad MCDG major or instr consent ;
Instructor: Koob,Michael D
Description: Student may contact the instructor or department for information.

GCD 8912 Genetic Counseling in Practice
A-F only, 4 credit(s); 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 8914 Ethical and Legal Issues in Genetic Counseling
A-F only, 3 credit(s); 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 8993 Directed Studies
1-5 credit(s), max credits 15, 15 repeats 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.
Description: Student may contact the instructor or department for information.

GEOG 1301W Our Globalizing World
4 credit(s); Meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive;
Instructor: Sheppard, Eric Stewart
Description: GEOG 1301 OUR GLOBALIZING WORLD Spring 2008 T, Th: 11.15-12.30, Willey Hall 125 Instructor: Eric Sheppard 515 social sciences building 625-5840; shepp001@umn.edu, http://www.geog.umn.edu/Faculty/Sheppard.html Office hours: Tuesdays 2:30-4:30, or by appointment Teaching Assistants: Brook Bernini-Galup 444 social sciences building 625-0543, berni071@umn.edu Discussion sections 3&4 (T, Th) Office hours: Tues. 2.30:30 Chris Strunk 444 social sciences building 625-0543, stru0173@umn.edu Discussion sections 5&7 (M, W) Office hours; Th. 1:30-2:30 Introduction Over the last decade, globalization? has become one of the hottest topics in the academy as well as in public discourse. The world indeed feels smaller and smaller, as our everyday lives feel more and more interconnected with global-scale processes, with nature, and with the lives of others far away. Is it true, however, that we live in a global village where geography no longer matters? And is it true that globalization is a new phenomenon? In this course, we will critically assess such presumptions, by learning to think geographically about our globalizing world. Geography is one of the `hidden treasures? of the US educational system. In most other countries students study Geography extensively in elementary and high school, Geography is an important discipline in all the major universities, and students majoring in Geography are in demand in a range of occupations. This is not the case in the United States, where Geography ends up being taught under other names (e.g., global studies, urban studies, environmental studies). The absence of Geography does not simply mean that Americans cannot locate places on a map, however. Geography brings a unique perspective to helping us understand, explain and improve the lives that we live; Geography is the quintessential ?inter-disciplinary discipline.? Its practitioners examine the relationship between human and societal processes (culture, political, economics, identity) and environmental processes (climatic, hydrological, ecological, geological), using methods that range from hermeneutics to mathematical modeling. This synthetic philosophy manes that geographers are well placed to tackle big inter-disciplinary problems. ? Geography pays particular attention to the spatial organization of the earth? s surface: not only to where things locate and how places take on their distinctive character, but also to how these spatial characteristics shape trajectories of change. In order to do so, geographers pay attention not only to spatial patterns, but also to how things evolve over time. ? Geographers do not just look at the world from the ivory tower but also get out into the world, undertaking fieldwork to draw on local knowledge and appreciate how and why phenomena differ from place to place.
Style: 60% Lecture, 15% Film/Video, 15% Discussion, 5% Field Trips.
Grading: 15% mid exam, 30% final exam, 30% reports/papers, 25% class participation.

GEOG 1403 Biogeography of the Global Garden
4 credit(s); Meets CLE req of Biological Sciences/Lab Core; meets CLE req of Environment Theme;
Instructor: Kipmueller, Kurt Foster
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 where different species have different concentrations of species. The geographies of plants and animals constantly change, contributing to the evolving biological diversity of places 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 environments vary geographically, and (2) how factors, such as climates and soils, control biotic distributions.

This information is accurate as of 6/9/2008 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 1403H Honors: Biogeography of the Global Garden
4 credit(s); prereq Honors; Meets CLE req of Biological
Sciences/Lab Core; meets CLE req of Environment Theme;
Instructor: Kipfmueler, Kurt Foster
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: 10% special projects, 60% quizzes, 30% laboratory evaluation.
Exam Format: Mixture of multiple choice, essay, map interpretation

GEOG 1425 Introduction to Meteorology
4 credit(s); prereq High school algebra; Credit will not be granted if credit has been received for: ESPM 1425; Meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core;
Instructor: Griffis, Timothy John
Description: The goal of GEOG 1425 is to introduce the basic physical, chemical and biological processes that drive changes in Earth’s weather and climate. Topics will include: radiation and energy exchange; greenhouse effect; stratospheric ozone depletion; severe weather hazards; general circulation of the atmosphere; climate teleconnections including El Nino, and impacts of human activities on climate. Weekly field and computer labs will be used to investigate how weather and climate data are measured, analyzed and interpreted. All lecture and lab material will be made available on the course web site.
Style: 80% Lecture, 20% Discussion.
Grading: 30% mid exam, 30% final exam, 10% class participation, 30% laboratory evaluation.
Exam Format: Multiple choice, short answer, short essay

GEOG 1502 Mapping Our World
4 credit(s); Meets CLE req of Mathematical Thinking Core;
Instructor: McMaster, Susanna Akko
Description: Are you fascinated by maps, Google Earth and global positioning systems? Want to know more about how maps and the real world are related? Want to learn how maps are made and used to analyze places and solve problems? Maps are very effective for communicating spatial information such as where phenomena are located and how to get from one place to another. This course will give you an introduction to the world of maps and its mathematical foundation. Lectures provide you with knowledge of mapping principles and how maps and mapping relate to society, as well as methods of map use including interpreting aerial photos and satellite images. The labs allow you to gain hands-on experience using maps and performing basic mapping tasks. Successful completion of this course will equip you with basic skills to design, read and use maps and other graphics. It will also give you a good start to learning more about the field of geographic information science, an area with growing career opportunities!
Style: 75% Lecture, 25% Laboratory.
Grading: See course syllabus for evaluation details
Exam Format: Multiple choice

GEOG 1973 Geography of the Twin Cities
3 credit(s); Credit will not be granted if credit has been received for: GEOG 1009; Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme;
Instructor: Pentel, Paula R
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.
Style: 75% Lecture, 10% Film/Video, 10% Discussion, 5% Small Group Activities.
Grading: 15% mid exam, 25% final exam, 60% reports/papers.

GEOG 3010 Geography of the United States and Canada
4 credit(s); Credit will not be granted if credit has been received for: GEOG 3102; Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core;
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 3355 Environmental Quality
3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Environment Theme;
Instructor: Squires, Roderick H
Description: The course, which is illustrative rather than comprehensive, concerns federal policy regarding the production, use, and disposal of chemicals. Subtitled “Better Living through Chemistry?”, it will ask the question “Who controls the production, use, and disposal of thousands of chemicals used in food, drugs, and a wide variety of other consumer products, that are “generally regarded as safe”?&”
Style: 50% Lecture, 50% Laboratory.
Grading: 100% reports/papers.

GEOG 3371W Cities, Citizens, and Communities
4 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive;
Instructor: Henderson, George Lawlor
Description: This course is about how structures of class, race/ethnicity, gender, and identity combine to produce...
varieties of urban experience in the United States. The course will also deal with why the city--why urbanization as a distinctive process--shapes those social structures in particular ways. The course centers primarily on the city as a crucial focus on capitalism and on capitalism as irrevocably a socially made and contested process. It is a hallmark of capitalism that it leads not only to the making of different kinds of urban environments and histories. It also relies upon and fosters social differences. Through discussion, lecture, case study readings (including two books and a variety of articles), and group projects, we will try to come to a more layered understanding of what makes the American city tick.

Description: Cities first appeared about 7,000 years ago. Only in the past 100 years have they become the dominant form of settlement in the "developed" world. We study cities not only because we are interested in them for their own sake, but because they serve as mirrors that reflect their makers and inhabitants, albeit imperfectly. In this course you will learn not just about cities, but about the civilizations that made them. The course pays particular attention to ancient cultures and cities; the medieval European city; Renaissance and Baroque cities; mercantile and industrial cities; the development of planning; colonial cities; utopian cities; and planning triumphs and disasters. Although the course draws broadly on world history, enough material will be covered in class to provide at least the rudimentary knowledge needed for this course. The course is primarily lecture, but class discussion is encouraged and solicited. Extensive use is made of slides and other visual aids. The course is intended for undergraduate majors and non-majors. It satisfies the History Core CLE requirement, and the International Perspectives Theme requirement. Texts include Lewis Mumford, The City in History; John Reps, Town Planning in Frontier America; and James E. Vance Jr. The Continuing City; Urban Morphology in Western Civilization.

Style: 90% Lecture, 10% Discussion.
Grading: 30% mid exam, 35% final exam, 35% reports/papers.
Exam Format: Essay-questions, distributed before exam, 1 handwritten page of notes allowed.

GEOG 3374V: Honors: The City in Film

Description: Movies are one of the key modes of discourse in the second half of the twentieth century. We have grown up with the movies, and some of us are at least as familiar with cinematic portrayals as we are with novels, poetry, painting and sculpture (though perhaps not television). Today our understanding of an increasingly urban world is mediated, in part, through cinematic representations. Of course, the nature of cities, and our reactions to them, have also changed during the past one hundred years of cinematic portrayal. This is the period in which the US became an urban nation, and then a suburban one. It is also the era in which an international metropolitan culture has blossomed, and in which metropolitan landscapes have been challenged by globalization. As these changes have occurred, they have been mirrored, sometimes presciently, sometimes imperfectly, in the cinematic record. In this course, we will view films in which the city, or ideas about urbanism, play an important role. We will look at films from the 1920s forward to today, from a variety of national settings. We will concentrate on a number of themes: attitudes toward urban form and technology; social and cultural conflict in the urban realm; political and economic processes; utopian and dystopian views of the urban future; and changing gender relationships in urban society. We will also relate these cinematic views to a series of seminal writings on urbanism, including some which address relations between more-developed and less-developed societies, the ways in which cinematic representations reflect those relations, and how cinema functions ideologically in different settings. Students will be graded on their participation in recitation section discussions, on three ?movie reviews,? and on a series of in-class quizzes.

Style: 20% Lecture, 40% Film/Video, 40% Discussion.
Grading: 60% reports/papers, 30% quizzes, 10% class participation. Percentages are different for grads/honors students.
Exam Format: No exams -- six quizzes, with the lowest grade dropped.
resources; Poverty and over-consumption as the twin sources of environmental degradation; Population and development. Urban environment in the South; Gender-class and environmental struggles; waste and the global commons. Teaching methods: There are lectures and one discussion session per week. Several students will lead each weekly discussion of current environment/development topic. We watch and critique several documentaries. Authors include: Bina Agarwai, Barry Commoner, Michael Watts, P. Blaikie; Dharam Ghai; David Harvey. Intended audience: Social and natural science undergraduates.

**Style:** 65% Lecture, 35% Discussion.
**Grading:** 30% mid exam, 30% final exam, 20% reports/papers, 20% class participation. class participation, examinations have been received for: GEOG 5401; Instructor: Klink,Katherine

**Description:** The underlying theme to this course is that the natural environment provides the resources that sustain humans, and that our well being depends crucially on our interaction and interdependence with the natural environment. We have three main objectives: 1. to understand the processes that create the patterns of the natural environment, specifically the patterns of climate, vegetation, soils, and landforms; 2. to comprehend how changes in the processes may influence spatial patterns; and 3. to study the potential of humans to cause changes in processes, spatial patterns, and ultimately, our natural resources. The course topics will be covered with a mixture of lectures, discussion, and computer-based lab work. Lab projects focus on environmental concepts discussed in class (climate, vegetation, and soils geography) and the lab projects lead up to each student's final project. The final (term) project involves evaluating the local effects of global climate change. Your analysis will focus primarily on a location within the United States (for which information will be more easily available). Your first task will be figuring out the current natural environment (climate, vegetation, and soils) for your location. Next you will determine the likely climatic changes at your location under doubled atmospheric carbon dioxide as predicted by several climate models.

**Style:** 70% Lecture, 30% Discussion.
**Grading:** 20% final exam, 30% reports/papers, 25% written homework, 20% additional semester exams, 5% class participation.

**Exam Format:** essay

**GEOG 3511 Principles of Cartography**

4 credit(s); prerequisite: 3 cr in geo or instr consent; Instructor: Mc Master,Robert B

**Description:** There are three major objectives to the introductory class in cartography. First is understanding the importance and characteristics of spatial data. Topics include data measurement levels, elementary statistical analysis, data classification, and fundamentals of geographical data. The second goal is to introduce the concepts of graphic design, the graphic hierarchy, and quantitative techniques for thematic mapping. Some of the specific methods we will cover this semester include choropleth mapping, isarithmic mapping, point symbolization mapping, and cartograms. In this section of the course, emphasis will also be placed on figure-ground relationships, color, and typography. Lastly, students will gain exposure to automated mapping hardware and software through the laboratory exercises. Lecture material will be enhanced through the laboratory exercises on basic thematic mapping techniques and cartographic design. The target audience is advanced undergraduates.

**Style:** 70% Lecture, 30% Laboratory.
**Grading:** 20% mid exam, 40% final exam, 40% laboratory evaluation.
**Exam Format:** Mixed mode--multiple choice, problem solving

**GEOG 3900 Topics in Geography**

3 credit(s), max credits 9, 3 repeats allowed; Instructor: Till,Karen E

**Description:** How do individuals and social groups actively shape understandings of the past and give form to their desires for the future through places, landscapes and environments? By looking at particular case studies in different parts of the world, this class considers how different societies at distinct moments in time spatially construct and negotiate national and local histories through geographies of memory. Cultural memory is an inherently spatial process whereby individuals and groups map stories and myths about themselves and the past onto and through places, nature and public spaces to establish a sense of identity. Museums and memorials have historically been built as official places of memory, but even in such traditional places, the pasts remembered at these locales are open to multiple interpretations. Beginning roughly in the late 1970s, many citizen groups began to challenge what they considered "forgetful" national histories by creating alternative places of memory, such as the Topography of Terror Documentation Center in Berlin, or the District Six Museum in Cape Town. Public artists also create site-specific and socially inclusive designs to encourage visitors to address their problematic pasts. Throughout the class, we will consider theories about place making, politics, public engagement, and memory by consider particular case studies. The case studies will also explore the tensions, contradictions, and moral dilemmas of the contemporary world? a world now structured by economies of late capitalism, a geopolitical system of nation-states connected by transnational partnerships (such as the EU, NATO, UN peace keeping forces), and, a world, following the tragedy of September 11, 2001, and in the wake of ongoing wars, is divided by real and imagined fears of terrorism. In particular, we will spend time discussing cities "wounded? by particularly violent histories, including London, Hiroshima, Berlin, Cape Town, Buenos Aires, Moscow, Dublin, Mostar, New Orleans, New York, and Minneapolis. We will also discuss the politics of traditional and alternative cultural practices of memory in many countries and types of environments, including: commemorative ceremonies; memorials and monuments; exhibitions; popular and scholarly representations of the past (film, books); creative urban encounters (public art and architecture); everyday geographies; and tourism.

**Style:** 40% Lecture, 10% Film/Video, 15% Discussion, 10% Small Group Activities, 5% Student Presentation, 10% Guest Speakers, 10% Service Learning. Special class events will be coordinated with visiting artists and other classes.

**GEOG 4393 Geography of the Twin Cities**

3 credit(s); Credit will not be granted if credit has been received for: GEO 1009; Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme; Instructor: Pentel,Faula R

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

**GEOG 3973 Geography of the Twin Cities**

4 credit(s); prerequisite: Honors, instr consent; Meets CLE req of Writing Intensive;
**Instructor:** Ziegler,Susy S

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

**GEOG 3985W Honors Senior Project Seminar**

4 credit(s); prerequisite: Honors, instr consent; Meets CLE req of Writing Intensive;
**Instructor:** Ziegler,Susy S

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

**GEOG 4933 The Rural Landscape**

4 credit(s);
**Instructor:** Hart,John Fraser

**Description:** Through lectures and field trips the course will examine the nature and history of land ownership in the United

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This information is accurate as of 6/9/2008 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.
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, moral, political, 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 5374W The City in Film**  
4 credit(s); prerequisite grad student or instr consent; Credit will not be granted if credit has been received for: GEOG 3374W; Meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive;  
**Instructor:** Miller, Roger P  
**Description:** Movies are one of the key modes of discourse in the second half of the twentieth century. We have grown up with the movies, and some of us are at least as familiar with cinematic portrayals as we are with novels, poetry, painting and sculpture (though perhaps not television). Today our understanding of an increasingly urban world is mediated, in part, through cinematic representations. Of course, the nature of cities, and our reactions to them, have also changed during the approximately one hundred years of cinematic portrayal. This is the period in which the US became an urban nation, and then a suburban one. It is also the era in which an international metropolitan culture has blossomed, and in which metropolitan landscapes have been challenged by globalization. As these changes have occurred, they have been mirrored, sometimes presently, sometimes imperfectly, in the cinematic record. In this course, we will view films in which the city, or ideas about urbanism, play an important role. We will look at films from the 1920s forward to today, from a variety of national settings. We will concentrate on a number of themes: attitudes toward urban form and technology; social and cultural conflict in the urban realm; political and economic processes; utopian and dystopian views of the urban future; and changing gender relationships in urban society. We will also relate these cinematic views to a series of seminal writings on urbanism, including some which address relations between more-developed and less-developed societies, the ways in which cinematic representations reflect those relations, and how cinema functions ideologically in different settings. Students will be graded on their participation in recitation section discussions, on three movie reviews, and on a series of in-class quizzes.

**Style:** 20% Lecture, 40% Film/Video, 40% Discussion.  
**Grading:** 60% reports/papers, 30% quizzes, 10% class participation. Percentages are different for grad/honors students.  
**Exam Format:** No exams -- six quizzes, with the lowest grade dropped.

**GEOG 5401 Geography of Environmental Systems and Global Change**  
4 credit(s); prerequisite grad student or instr consent; Credit will not be granted if credit has been received for: GEOG 3401;  
**Instructor:** Klink, Katherine  
**Description:** The underlying theme to this course is that the natural environment provides the resources that sustain humans, and that our well being depends crucially on our interaction and interdependence with the natural environment. We have three main objectives: 1. to understand the processes that create the patterns of the natural environment, specifically the patterns of climate, vegetation, soils, and landforms; 2. to comprehend how changes in the processes may influence spatial patterns; and 3. to study the potential of humans to cause changes in processes, spatial patterns, and ultimately, our natural resources. The course topics will be covered with a mixture of lectures, discussion, and computer-based lab work. Lab projects focus on environmental concepts discussed in class (climate, vegetation, and soils geography) and the lab projects lead up to each student's final project. The final (term) project involves evaluating the local effects of global climatic change. Your analysis will focus primarily on a location within the United States (for which information will be more easily available). Your first task will be figuring out the current natural environment (climate, vegetation, and soils) for your location. Next you will determine the likely climatic changes at your location under doubled atmospheric carbon dioxide as predicted by several climate models.

**Style:** 50% Lecture, 25% Discussion, 25% Laboratory.  
**Grading:** 20% final exam, 25% reports/papers, 25% quizzes, 5% class participation, 25% laboratory evaluation.

**Exam Format:** essay

**GEOG 5511 Advanced Cartography**  
3 credit(s); prerequisite 3511 or instr consent;  
**Instructor:** Mc Master, Robert B  
**Description:** There are three major objectives to the introductory class in cartography. First is understanding the importance and characteristics of spatial data. Topics include data measurement levels, elementary statistical analysis, data classification, and fundamentals of geographical data. The second goal is to introduce the concepts of graphic design, the graphic hierarchy, and quantitative techniques for thematic mapping. Some of the specific methods we will cover this semester include choropleth mapping, point symbolization mapping, and cartograms. In this section of the course, emphasis will also be placed on figure-ground relationships, color, and typography. Lastly, students will gain exposure to automated mapping hardware and software through the laboratory exercises. Lecture material will be enhanced with laboratory exercises. The target audience is advanced undergraduates.

**Style:** 70% Lecture, 30% Discussion.  
**Grading:** 20% mid exam, 40% final exam, 40% laboratory evaluation.

**Exam Format:** Mixed mode--multiple choice, problem solving

**GEOG 5563 Advanced Geographic Information Science**  
3 credit(s); prerequisite B or better in 3561 or 5561 or instr consent;  
**Instructor:** Harvey, Francis James  
**Description:** Student may contact the instructor or department for information.

**GEOG 5900 Topics in Geography**  
3 credit(s), max credits 9, 3 repeats allowed; prerequisite or grad, instr consent;  
**Instructor:** Till, Karen E  
**Description:** How do individuals and social groups actively shape understandings of the past and give form to their desires for the future through places, landscapes and environments? By looking at particular case studies in different parts of the world, this class considers how different societies at distinct moments in time spatially construct and negotiate national and local histories through geographies of memory. Cultural memory is an inherently spatial process whereby individuals and groups map stories and myths about themselves and the past onto and through places, natures and public spaces to establish a sense of identity. Museums and memorials have historically been built as official places of memory, but even in such traditional places, the past is remembered at these locales are open to multiple interpretations. Beginning roughly in the late 1970s, many citizen groups began to challenge what they considered ?forgetful? national histories by creating alternative places of memory, such as the Topography of Terror Documentation Center in Berlin or the District Six Museum in Cape Town. Public artists also create site-specific and socially inclusive designs to encourage visitors to address their problematic pasts. Throughout the class, we will consider theories about place making, politics, public engagement, and memory by consider particular case studies. The class will also explore the tensions, contradictions, and moral dilemmas of the contemporary world ? a world now structured by economies of late capitalism, a geopolitical system of nation-states conditioned by transnational partnerships (such as the EU, NATO, UN peace keeping forces), and, a world,
following the tragedy of September 11, 2001, and in the wake of ongoing wars, is divided by real and imagined fears of terrorism. In particular, we will spend time discussing cities "wounded" by particularly violent histories, including London, Hiroshima, Berlin, Cape Town, Buenos Aires, Moscow, Dublin, Mostar, New Orleans, New York, and Minneapolis. We will also discuss the politics of traditional and alternative cultural practices of memory in many countries and types of environments, including: commemorative ceremonies; memorials and monuments; exhibitions; popular and scholarly representations of the past (film, books); creative urban encounters (public art and architecture); everyday geographies; and tourism.

**Style:** 40% Lecture, 10% Film/Video, 15% Discussion, 10% Small Group Activities, 5% Student Presentation, 10% Guest Speakers, 10% Service Learning. Special class events will be coordinated with visiting artists and other classes.

**GEOG 8002 Research Methods in Geography**
3 credit(s);
**Instructor:** Leitner, Helga
**Description:** Student may contact the instructor or department for information.

**GEOG 8230 Theoretical Geography**
3 credit(s); prereq instr consent;
**Instructor:** Henderson, George Lawlor
**Description:** Student may contact the instructor or department for information.

**GEOG 8291 Seminar in GIS, Technology, and Society**
3 credit(s); prereq instr consent;
**Instructor:** Harvey, Francis James
**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 concern 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 Pennsylvania 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 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:** 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 Stewart
**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: Gidwani,Vinay Krishin
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: Ziegler,Susy 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: McMaster,Susanna Akiko
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: Harvey,Francis James
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: Henderson,George Lawlor
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: Manso,Steven M.
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: Shuman,Bryan Nolan
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: Kipfmueuler,Kurt Foster
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: Saldanha,Arun
Description: Student may contact the instructor or department for information.

GEOG 8980 Topics in Geography
1-3 credit(s), max credits 15, 10 repeats allowed; prereq instr consent ;
Instructor: Till,Karen E
Description: Geography 8980: Memory Traces ?the traces of the storyteller cling to the story the way the handprints of the potter cling to the clay vessel? (Walter Benjamin) Archives, photographs, mappings, archaeological digs, crime scenes, sketches, ruins, bodies, silences, places. How might we theorize the afterlives and effects of experiences, perceptions and events? How are residual marks created, left, collected, located and remembered? Do all traces acquire meaning through acts of discovery and relocation? This advanced graduate seminar explores theories of and discussions about memory ? from Freud?s mystic writing pad to Bergson?s notion of duration; from Derrida?s ruins and hauntologies to Ricouer?s constructive forgetting ? by paying attention to residuals, remainders and traces. We will also explore these concepts through artistic performances and activist interventions. Course texts include: Derrida?s Memoirs of the Blind: The Self-Portrait and Other Ruins; Charles Merewether?s edited reader, The Archive (from the Documents of Contemporary Art Series); Henri Bergson?s Matter and Memory; Paul Ricouer?s History, Memory, Forgetting; and Mike Pearson and Michael Shanks, Theatre/Archaeology.

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: Letzner,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: Miller,Roger P
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: Brown,Dwight 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: Samata,Abdi Ismail
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: Klink, Katherine
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: Well, Connie
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 Stewart
Description: Student may contact the instructor or department for information.

GEOE 8300 Seminar: Geomechanics
122 Civil & Mineral Engineering

GEOE 3301 Soil Mechanics I
A-F only, 3 credit(s); prereq IT student, AEM 3031; Credit will not be granted if credit has been received for: CE 3301;
Instructor: Guzina, Bojan B
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 4301 Soil Mechanics II
A-F only, 3 credit(s); prereq Upper division student in IT; 3301, CE 3301, or instr consent; Credit will not be granted if credit has been received for: CE 4301;
Instructor: Drescher, Andrew
Description: Student may contact the instructor or department for information.

GEOE 4311 Rock Mechanics
A-F only, 4 credit(s); prereq [(3301 or CE 3301), upper div or grad student in IT] or instr consent;
Instructor: Labuz, Joseph F
Description: Student may contact the instructor or department for information.

GEOE 4352 Groundwater Modeling
A-F only, 3 credit(s); prereq upper division or grad student in IT, 4351, CE 4351, or instr consent; Credit will not be granted if credit has been received for: CE 4352;
Instructor: Strack, Otto D
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 repeats allowed; Credit will not be granted if credit has been received for: CE 8300;
Instructor: Guzina, Bojan B
Description: Student may contact the instructor or department for information.

Geology and Geophysics
106 Pillsbury Hall

GEO 1001 Earth and Its Environments
4 credit(s); Meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core;
Instructor: Moskowitz, Bruce Matthew
Description: Student may contact the instructor or department for information.

GEO 1001 Earth and Its Environments
4 credit(s); Meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core;
Instructor: Whitney, Donna L
Description: Student may contact the instructor or department for information.

GEO 1001 Earth and Its Environments
4 credit(s); Meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core;
Instructor: Kirkby, Kent Charles
Description: An introduction to the principles of geology with an emphasis on the physical processes that shape the Earth. Through lectures, slides, videos, and demonstrations, students learn how volcanoes, earthquakes, plate tectonics, wind, rivers, and glaciers have shaped our planet's landscape. In the laboratory sessions students learn to identify rocks and minerals, use them to interpret the Earth's past history, and understand how they affect our society. They will create geologic maps; locate earthquakes and choose environmentally sound landfill sites. A major goal of the course is to provide students with a better understanding of our planet in the context of current environmental issues and global change. GEO 1001 satisfies the Diversified Core Curriculum's requirements for both the environmental theme and as a physical science with lab. This course is designed for undergraduate students that are not geology majors. There are no college prerequisites. During the fall and spring semesters there is an optional Saturday field trip to the St. Croix River Valley and other local geologic sites.
Style: 55% Lecture, 40% Laboratory. Video
Grading: 45% mid exam, 20% final exam, 10% reports/papers, 25% laboratory evaluation
Exam Format: Mid-term: Multiple choice, short answer/short essay Final: Multiple choice only.

GEO 1003 Dinosaur Evolution, Ecology, and Extinction: Introduction to the Mesozoic World
3 credit(s); Credit will not be granted if credit has been received for: GEO 5003;
Instructor: Kirkby, Kent Charles
Description: Dinosaurs and the Mesozoic Era are used to introduce four of the most important contributions of geology: geologic time; organic evolution; plate tectonics; and the integration of Earth systems. Our world’s dynamic nature is revealed by focusing on an era when the Earth began to evolve its present geography, climate and ecological systems. The course also looks at the history and social implications of dinosaur interpretations. Our views of dinosaurs continues to change with new data and new concepts. Previous interpretations are considered in light of the then-existing evidence and social paradigms. Relatively few workers and a short history make dinosaur studies an excellent case study of the social aspects of scientific investigation. A variety of past and present controversies are covered during the course including: the recognition of fossils as remains of past life, organic evolution, continental drift, dinosaur physiology, the origin of mass extinctions and global warming. Evidence, pro and con, are presented with extended class discussions of the unresolved controversies. This course was designed for undergraduate, non-geology majors. There is an optional (but recommended) trip to the Science Museum.
Style: 85% Lecture, 15% Discussion.
Grading: 100% quizzes
Exam Format: Multiple choice, short answer/short essay

GEO 1005 Geology and Cinema
4 credit(s); Credit will not be granted if credit has been received for: GEO 1105; Meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core;
Instructor: Revenaugh, Justin
Description: GEO1005 offers an introduction to the Earth Sciences using the depictions of geology and geophysics offered by the popular media, cinema in particular, as springboards to discussion and development. Much of what most people believe about the geologic history of the Earth, life on it and the processes that shape it is gathered from films. Much of that &quot;knowledge&quot; is wrong, often very wrong, but the myths promulgated by movies can be very enduring. GEO1005 exposes those myths and sets out a basic understanding of the modern Earth Sciences. We cover such topics as: formation of the solar system and Earth, Earth's 4.5-billion-year history, the fossil record of life on the planet, volcanism, earthquakes, climate change, streams, oceans, deserts, glaciers, natural resources and Earth stewardship. Emphasis is placed on the interactions between geologic processes, man and the environment, with the control of nature as an overarching theme. Each lecture topic will be prefaced with clips from Hollywood movies. Several movies will be shown in their entirety (the Core, Dante's Peak and Jurassic Park) with students asked to critique the reality of science depicted in the movie. The laboratory component introduces students to minerals and rocks, geologic maps and the basics of geology field work. Material in lab follows that of lecture and offers students the opportunity to gain hands-on experience. Meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core.
Style: 45% Lecture, 40% Laboratory. Videos
Grading: 20% reports/papers, 50% quizzes, 10% in-class presentation, 20% laboratory evaluation
Exam Format: Combination of multiple choice and short answer.

GEO 1081 Conspiracies, Fraud, and Deception in Earth History
1 credit(s);
Instructor: Pfannkuch, Hans-Olaf
Description: To show the history of development of geological ideas in the context of the intellectual background of their times, to demonstrate how the scientific method works and how it is capable of correcting errors as demonstrated by abuses exemplified in hoaxes, swindles and fraud from three centuries. The Beringer case takes an example from the transition period between fantastic speculation about fossils and their origin, and the first systematic scientific theories based on comparative anatomy and basic geological principles. The diamond caper demonstrates Clarence King's application of new quantitative theories on metamorphism and mineral genesis as well as field observations to unravel a fraudulent scheme. The Piltdown man controversy centers around the application of quantitative laboratory methods to accurately determine ages of fossil remains. All three demonstrate how people will believe what they want to believe even in a purely scientific context, but where the scientific method applied rigorously and with integrity will lead to uncover scientific fraud.
Style: 65% Lecture, 35% Discussion.
Grading: 45% final exam, 45% reports/papers, 10% class participation
Exam Format: short essay

GEO 1101 Introduction to Geology
3 credit(s); Credit will not be granted if credit has been received for: GEO 5001; Meets CLE req of Environment Theme;
Instructor: Moskowitz, Bruce Matthew
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 5001; Meets CLE req of Environment Theme;
Instructor: Whitney, Donna L
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 5001; Meets CLE req of Environment Theme;
Instructor: Kirkby, Kent Charles
Style: 95% Lecture, Video

GEO 1105 Geology and Cinema
3 credit(s); Credit will not be granted if credit has been received for: GEO 1005;
Instructor: Revenaugh, Justin
Description: Student may contact the instructor or department for information.

GEO 2302 Petrology
3 credit(s); prereq 2301 or instr consent;
Instructor: Whitney, Donna L
Description: This course is an introduction to the origin and evolution of igneous and metamorphic rocks, with an emphasis on the plate tectonic interpretation of rock sequences. The main goal of the course is to explain how igneous and metamorphic processes have built the Earth's crust. This involves both big-picture concepts (Why do volcanoes occur where they do? What happens when continents collide?) and detail (What is diopside? How do garnets change composition as they grow?). Geoscience majors (geology, geophysics) will gain information and skills necessary to use mineral assemblages and rock textures to interpret the origin and tectonic setting of igneous and metamorphic rocks.
Style: 50% Lecture, 50% Laboratory.
Grading: 30% mid exam, 30% final exam, 30% laboratory evaluation, 10% problem solving. Each half of the class (igneous, metamorphic petrology) has an exam; there is no cumulative final exam.
Exam Format: short answer

GEO 2303W Geochemical Principles
3 credit(s); prereq concurrent enrollment Chem 1021 or instr consent; Meets CLE req of Writing Intensive;
Instructor: Edwards, Lawrence
Description: Student may contact the instructor or department for information.

GEO 3002 Climate Change and Human History
3 credit(s); Credit will not be granted if credit has been received for: GEO 5102; Meets CLE req of Environment Theme;
Instructor: Ito, Emi
Description: This course examines the temporal, geographical, and environmental aspects of past climate changes, and by using specific examples, explores how past climate changes may have affected the course of human history. Through lecture and discussions, we will examine geological, geographical, sedimentological, paleontological, and archaeological evidence to construct a record of global climate change and to answer such questions as: How frequently have global and regional climate changes occurred in the past? How large were shifts in temperature and aridity associated with these past climate changes? How long can climate states or patterns last? What effect has human activity had in past climate changes? How have climate changes of the last 10,000 years affected the economic condition of early societies? How did past climate changes affect the balance of power among kingdoms and city-states? Examples from the Americas, Africa, Asia, Europe, and the Near East will be examined to illustrate how significant events in human history have been strongly influenced by changes in climate.
Style: 70% Lecture, 30% Discussion, some videos
Grading: 35% mid exam, 35% reports/papers, 15% quizzes, 15% in-class presentation.
Exam Format: short essays, definitions

GEO 3006 Planets of the Solar System
3 credit(s);
Instructor: Yuen, David A
Description: Student may contact the instructor or department for information.

GEO 3093 Problems in Geology and Geophysics: Junior 1-4 credit(s), max credits 6, 6 repeats 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 3401 Geochronology and Earth History
3 credit(s); prereq 2303;
Instructor: Runkel, Anthony C
Description: Geo 3401 is a course for Geology majors and studies time in relationship to the history of the earth. The course presents quantitative and relative age-dating techniques based on the fundamental principles of isotopic decay and organic evolution (fossils); paleomagnetism, etc. The class will synthesize much of the student's geologic background and apply it to determinations of geologic time to gain an appreciation of the strengths and weaknesses of currently available chronostratigraphic techniques. The course emphasizes how various dating techniques are used to solve fundamental geologic problems. This includes the use of chronostratigraphic techniques in exploration for precious metals and petroleum, and in hydrogeologic studies, including local examples from Minnesota. Particular emphasis towards the end of the course will be placed on integrating these concepts in an evaluation of the ongoing controversy surrounding the extinction of the dinosaurs at the end of the Cretaceous Period.
Style: 50% Lecture, 50% Laboratory.
Grading: 35% mid exam, 35% final exam, 30% laboratory evaluation.
Exam Format: Short answer, essay, multiple choice

GEO 3880 Laboratory Workshop
1 credit(s), max credits 2; prereq Geo or Geophys or GeoEng major or instr consent;
Instructor: Myrbo, Amy Eianor
Description: Student may contact the instructor or department for information.

GEO 3880 Laboratory Workshop
1 credit(s), max credits 2; prereq Geo or Geophys or GeoEng major or instr consent;
Instructor: Hirschmann, Marc M
Description: Student may contact the instructor or department for information.

GEO 3880 Laboratory Workshop
1 credit(s), max credits 2; prereq Geo or Geophys or GeoEng major or instr consent;
Instructor: Hirschmann, Marc M
Description: Student may contact the instructor or department for information.

GEO 3890 Field Workshop
1 credit(s), max credits 2; prereq Geo or Geophys or GeoEng major or instr consent;
Instructor: Myrbo, Amy Eianor
Description: Student may contact the instructor or department for information.
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 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 4102W Vertebrate Paleontology: Evolutionary History and Fossil Records of Vertebrates
A-F only, 4 credit(s); prereq 1001 or 1002 or Biol 1001 or Biol 1002 or Biol 1008 or instr consent; Meets CLE req of Writing Intensive;
Instructor: Fox, David L
Description: Student may contact the instructor or department for information.

GEO 4204 Geomagnetism and Paleomagnetism
3 credit(s); prereq 2201, Phys 1302, Math 1272 or instr consent;
Instructor: Moskowitz, Bruce Matthew
Description: Student may contact the instructor or department for information.

GEO 4401 Aqueous Environmental Geochemistry
3 credit(s); prereq Chem 3501 or instr consent;
Instructor: Seyfried Jr, William E
Description: Student may contact the instructor or department for information.

GEO 4602 Sedimentology and Stratigraphy
3 credit(s); prereq [3402, [IT upper div major in [geology or geophysics or geo-engineering or mining engineering]] or CLA [jr or sr] major in geology]; instr consent;
Instructor: Kleinsepp, Karen L
Description: Student may contact the instructor or department for information.

GEO 4701 Geomorphology
3-4 credit(s), max credits 4, 1 repeat allowed; prereq 1001, Math 1031 or instr consent;
Instructor: Peg, Lesley Anne
Description: Student may contact the instructor or department for information.

GEO 5102 Climate Change and Human History
3 credit(s); prereq 1001 or equiv or instr consent; Credit will not be granted if credit has been received for: GEO 3002;
Instructor: Ito, Emi
Description: Student may contact the instructor or department for information.

GEO 5108 Principles of Environmental Geology
3 credit(s); prereq Geology majors: core curriculum through 4501 or instr consent; nonmajors: 1001 or instr consent;
Instructor: Pfannkuch, Hans-Offaf
Description: The objective of the course is (1) to give an overview of basic principles of environmental geology from a general and global perspective, (2) to have students participate in the handling of a practical, theoretical, or local problem through direct participation and research. From the global point of view Environmental Geology is defined in the context of the fundamental question it addresses, survival of the human species. The common basis for discussion is the postulate that human ecosystems are part of ecosystems in general and therefore subject to the same constraints given by the physical and chemical environment. The specific topics use general systems theory and the ecological approach to deal with those aspects of the problem that are truly geologic. A discussion of the flow of energy and materials through biogeochemical cycles focuses on global issues of finite geologic resources, the finite carrying capacity or waste assimilation and processing capacity of the earth, and man's increasing role as a geologic agent. These geographic factors are incorporated into global simulation models to create different scenarios of the future and to spell out options to manage future impacts. Environmental geology is used to examine these world models from a geographic perspective and to realistically assess the risks and limits of the transition to acceptable permanent and sustainable solutions.
Style: 50% Lecture, 20% Discussion, class project (report)
Grading: 20% mid exam, 25% final exam, 8% reports/papers, 10% in-class presentation, 10% participation.
Exam Format: essay

GEO 5353 Electron Microprobe Theory and Practice
3 credit(s); prereq [One yr chem, one yr physics] or instr consent;
Instructor: Frahm, Ellery Edward
Description: Please visit the course webpage for additional information. This course aims to familiarize students 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 both lectures and labs. This course is not mathematically based; there will be no weekly problem sets. Instead, the lectures and readings are intended to develop a conceptual and qualitative or semi-quantitative understanding of the principles and instrumentation of electron microscope 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. The only prerequisites are one year of physics and/or chemistry or instructor consent. Coursework in geology is helpful but not required — students from Physics, Materials Science, Archaeology, and other departments have successfully completed this course. 

**Style:** 50% Lecture, 50% Laboratory. 
**Grading:** 20% mid exam, 25% final exam, 10% special projects, 20% quizzes, 5% class participation, 20% laboratory evaluation.

**Exam Format:** Multiple choice, short answer, essay, diagrams; few or no mathematical problems

**GEO 5502 Advanced Structural Geology**

3 credit(s); prereq 4501 or instr consent; 
Instructor: Hudleston, Peter John 
Description: This course deals with the analysis of deformation of rock and the mechanical interpretation of natural structures. Lectures are supplemented by readings from text books and the literature. There is no single required text. A set of problems is assigned during the course, and there may be a field trip to examine small-scale structures in northern Minnesota. An introductory course in structural geology (Geo 4501 or equivalent) is a prerequisite. Specific topics include: Stress theory and state of stress in the earth's crust; stress history - deducing stress from structures; finite strain in two and three dimensions; progressive deformation; geological implications of strain theory; determination of finite strains in rock using fossils, conglomerates etc.; mechanical properties of rock and the behavior under creep or very slow constant stress conditions; theories of faulting and jointing; development of fabric; folding. 
**Style:** 80% Lecture, 20% Discussion. 
**Grading:** 50% final exam, 50% other evaluation. 

**Problem Sets Exam Format:** Essay

**GER 1004 Intermediate German**

5 credit(s); prereq 4501 or 1003; 
Instructor: STAFF 
Description: This course is designed to review basic German grammar reference materials. Students 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, 28% class participation, 13% other evaluation. 

**Exam Format:** written.

**GER 1002 Beginning German**

5 credit(s); prereq 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, 28% class participation, 13% other evaluation. 

**Exam Format:** written.

**GER 1003 Intermediate German**

5 credit(s); prereq 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-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. 

**Exam Format:** reading/group work assignments and computer and audio lab.

**GER 1004 Intermediate German**

5 credit(s); prereq 1003 or completion of Entrance 

GER 1022 Beginning German Review
5 credit(s); prereq 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, 25% class participation, 15% other evaluation. reading/group assignments, 20% computer/audio lab
Exam Format: Written

GER 3011W 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 works 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, 30% Film/Video, 10% Discussion, 35% Small Group Activities, 15% Student Presentation.
Grading: 35% reports/papers, 25% quizzes, 10% journal, 25% in-class presentation, 10% class participation.

GER 3014 German Media
3 credit(s); prereq 3011;
Instructor: Hueser.Rembert
Description: Student may contact the instructor or department for information.

GER 3021 Business German
3 credit(s); prereq 3011 or equiv;
Instructor: Ianeva-Lockney.Arsena
Description: This course is aimed at students with advanced knowledge of German and will give them the opportunity to learn about German companies, industry sectors and their products. In addition to readings from the textbook, the students will summarize current articles from the German business press and from a German podcast. For their oral presentations, students will acquire knowledge regarding how to describe the size and activities of a company, how to read an organization chart and interpret graphics. Writing assignments will focus on business correspondence and will include detailed instruction on writing the most frequently used types of letters.
Style: 20% Lecture, 20% Discussion, 20% Small Group Activities, 20% Student Presentation, 10% Web Based. In class writing - 10%
Grading: 20% special projects, 20% quizzes, 10% written homework, 10% attendance, 20% in-class presentation, 20% class participation.

GER 3104W Reading and Analysis of German Literature
4 credit(s); prereq 3011; Meets CLE req of Literature Core;
meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Day section: Genius and Madness/Wahnsinn und Genie: This course considers the two in conjunction specifically in the context of German culture. We will begin with the classical conception of mania as a divine source of prophecy, ecstasy, poetic creation and erotic desire, and then trace its manifestations in select German literary and visual texts from the 18th to the 20th century. These will be accompanied by some theoretical and critical readings. Texts include: Sophocles in Holderlin's translation, Plato (from Phaedrus), Goethe (from Torquato Tasso), Buchner (Lenz), Hoffman (Ritter Gluck), Berhard (Der Untergeber), Kleist (Santa Cecilia), Freud + Schreber, Wiene (Caligari), F. Lang (Mabuse), W. Herzog (Kasper Hauser), Syberger (Hitler - ein Film aus Deutschland), as well as the Derrida Foucault debate. Taught by Prof. Tamar Abramov.
Style: 50% Lecture, 50% Discussion.

GER 3512W German Civilization and Culture: 1700 to the Present
3 credit(s); Meets CLE req of Writing Intensive;
Instructor: Morris,Leslie C
Description: Student may contact the instructor or department for information.

GER 3593 Directed Studies: German-Speaking Countries
4 credit(s), max credits 12, 3 repeats allowed; prereq 3011, dept consent;
Instructor: STAFF
Description: Preparation for research abroad during semester before departure. Written and oral reports upon return.

GER 3610 German Literature in Translation: European Music & Arts c. 1900
3 credit(s), max credits 9, 3 repeats allowed; prereq No knowledge of German required; cr toward major or minor requires reading in German;
Instructor: Painter PhD,Karen
Description: Student may contact the instructor or department for information.

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; Meets CLE req of International Perspect Theme; meets CLE req of Literature Core;
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 "Kafka: 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.

GER 3704 German Dialects
2 credit(s); prereq 1004;
Instructor: Hoptman, Ari E
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 Grenzverkehr. Along with this textbook we use a German cultural reader called Wende, a mystery which takes place in Munich, and Oktoberfest.

Style: mostly discussion and student involvement and interaction.
Grading: 10% final exam, 12% reports/papers, 5% special projects, 30% quizzes, 30% class participation, 14% other evaluation.
Reading/group work assignments and computer/audio lab
Exam Format: written

GER 3993 Directed Studies
1-4 credit(s), max credits 12, 12 repeats 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 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, 30% quizzes, 30% class participation, 14% other evaluation.
Exam Format: written

GER 4002 Beginning German
2 credit(s); prereq Grad student;
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, 4% special projects, 30% quizzes, 30% class participation, 14% other evaluation.
Reading/group work assignments and computer/audio lab
Exam Format: written

GER 4003 Intermediate German
2 credit(s); prereq Grad student;
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.

GER 4004 Intermediate German
2 credit(s); prereq Grad student;
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).

GER 5016 Advanced Translation: Theory and Practice
3 credit(s); prereq 3011 or instr consent;
Instructor: Firchow, Evelyn S
Description: This course will continue the grammar review begun in German 5011, using Hammer/Durrell. During this semester the emphasis will be on translating selected texts from German to English and English to German; every student will have a choice of a German text to translate in lieu of a final examination. An oral class report will also be given on this text and its translation.

GER 5712 History of the German Language II
3 credit(s); prereq 5711;
Instructor: Firchow, Evelyn S
Description: Student may contact the instructor or department for information.

GER 5993 Directed Studies
1-4 credit(s), max credits 12, 12 repeats 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 8010 Current Debates in Literary and Cultural Theory
3 credit(s), max credits 12, 4 repeats allowed;
Instructor: Schulte-Sasse, Jochen
Description: Student may contact the instructor or department for information.

GER 8020 Problems in Literary and Cultural History: Coming up with “Baroque”
3 credit(s), max credits 12, 4 repeats allowed;
Instructor: Hueser, Rembert
Description: Student may contact the instructor or department for information.

GER 8742 Gothic and Methods of Comparative Reconstruction
II
3 credit(s); prereq 8741;
Instructor: Liberman, Anatoly
Description: Student may contact the instructor or department for information.

Gerontology
D-351 Mayo (Box 197 UMHC)

GERO 5110 Biology of Aging
3 credit(s);
Instructor: Snow MD, PhD, LeAnn M
Description: Student may contact the instructor or department for information.

Global Studies
214 Social Science

GLOS 3145H Theoretical Approaches to Global Studies
A-F only, 4 credit(s); prereq 6 credits in the social sciences including at least one of the following: Geog 1301; Hist 1012/1018; GloS 1015W; or PolSci 1025; or instr consent;
Credit will not be granted if credit has been received for: GLOS 3145;
Instructor: Gidwani, Vinay Krishin
Description: In what sense has our world suddenly become “global”? What was our world before it became “global”? What theories of the world do we explicitly and/or implicitly invoke when we deploy the words “global” and “globalization”? What are the theoretical and conceptual presuppositions that make it possible for us to think in these terms? In this class, we interrogate the words “global” and “globalization” as the latest organizing elements of the varied, still-unfolding processes of modernity. For our purposes, “global studies” is ultimately about understanding the ways in which the living and non-living elements of the world are mapped, partitioned, measured, labeled, categorized, territorialized, and conceptualized at various moments in time. This is a course in learning how to think theoretically, hence the title: “Theoretical Approaches to Global Studies.” Why should you feel compelled to take the course? Because, at the end of the day, the course will help you better understand our contemporary human condition, and how you might work to improve it. What sorts of global ethics should we aspire towards? How should we exercise citizenship in a globalizing world? GloS 3101 is required for Global Studies majors and open to all other interested undergraduates who have fulfilled course prerequisites. The course format is lectures complemented by weekly recitation sections. The course is likely to be web-enhanced (URL presently not available).
Style: 67% Lecture, 33% Discussion.
Grading: 30% mid exam, 30% final exam, 40% reports/papers.
In-class quizzes may be added to syllabus
Exam Format: Multiple choice and/or keyword definitions, and short essays

GLOS 3145 Theoretical Approaches to Global Studies
A-F only, 4 credit(s); prereq 6 credits in the social sciences including at least one of the following: Geog 1301; Hist 1012/1018; GloS 1015W; or PolSci 1025; or instr consent;
Credit will not be granted if credit has been received for: GLOS 3145;
Instructor: Gidwani, Vinay Krishin
Description: In what sense has our world suddenly become “global”? What was our world before it became “global”? What theories of the world do we explicitly and/or implicitly invoke when we deploy the words “global” and “globalization”? What are the theoretical and conceptual presuppositions that make it possible for us to think in these terms? In this class, we interrogate the words “global” and “globalization” as the latest organizing elements of the varied, still-unfolding processes of modernity. For our purposes, “global studies” is ultimately about understanding the ways in which the living and non-living elements of the world are mapped, partitioned, measured, labeled, categorized, territorialized, and conceptualized at various moments in time. This is a course in learning how to think theoretically, hence the title: “Theoretical Approaches to Global Studies.” Why should you feel compelled to take the course? Because, at the end of the day, the course will help you better understand our contemporary human condition, and how you might work to improve it. What sorts of global ethics should we aspire towards? How should we exercise citizenship in a globalizing world? The course is likely to be web-enhanced (URL presently not available).
Style: 67% Lecture, 33% Discussion.
Grading: 30% mid exam, 30% final exam, 40% reports/papers.
In-class quizzes may be added to syllabus
Exam Format: Multiple choice and/or keyword definitions, and short essays

GLOS 3303 Environment and Development in the Third World
A-F only, 3 credit(s); prereq Soph or jr or sr; Credit will not be granted if credit has been received for: Geog 3331;
Meets CLE req of Environment Theme; meets CLE req of International Perspect Theme;
Instructor: Samatar, Abdi Ismail
Description: This course has three objectives: (a) to advance students’ knowledge of the dynamics of capitalism as a global system, its insatiable appetite for resources, and effect on human development; (b) to give students analytical tools to understand the relationship between this expansive system, its

This information is accurate as of 6/9/2008 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.
enormous productive and destructive capacity (social and ecological); (c) to enable students to gain substantive knowledge about how this system impacts on Africa, Asia, and Latin America, and the social and ecological struggles in these regions. Topic covered include: Dynamics and patterns of economic development; Uneven global consumption of natural resources; Poverty and over-consumption as the twin sources of environmental degradation; Population and development, Urban environment in the South; Gender-class and environmental struggles; waste and the global commons. Teaching methods: There are lectures and one discussion session per week. Several students will lead each weekly discussion of current environment/development topic. We watch and critique several documentaries. Authors include: Bina Agarwal, Barry Commoner, Michael Watts, P. Blake; Dharam Ghi; David Harvey. Intended audience: Social and natural science undergraduates

**Style:** 65% Lecture, 35% Discussion. **Grading:** 30% mid exam, 30% final exam, 20% reports/papers, 20% class participation.

**GLOS 3402 Human Rights Internship**  
A-F only, 3 credit(s); prereq 3401, instr consent;  
**Instructor:** Frey, Barbara A  
**Description:** Student may contact the instructor or department for information.

**GLOS 3415 Global Institutions of Power: World Bank, International Monetary Fund, and World Trade Organization**  
A-F only, 3 credit(s);  
**Instructor:** Goldman, Michael R  
**Description:** This course introduces three of the world’s most powerful global institutions -- the World Bank, International Monetary Fund, and World Trade Organization. Three dimensions will be emphasized: we will look behind their closed doors to understand their daily practices; we will learn about the political, economic, and cultural terrain in which they operate; and we will observe them in key sites in the global South and North. General course themes include the business and expertise of development, poverty and wealth generation, the ideas of free market and trade, the rise of a transnational professional class and networks, and transnational social activism and networks.  
**Style:** 50% Lecture, 30% Discussion. student debates and in-class presentations  
**Grading:** 70% Lecture, 30% Discussion. student debates and in-class presentations, 20% class participation.

**GLOS 3550V Honors Course: Supervised Research Paper**  
4 credit(s); Meets CLE req of Writing Intensive;  
**Instructor:** McLean, Stuart J  
**Description:** Student may contact the instructor or department for information.

**GLOS 3602 Other Worlds: Globalization and Culture**  
A-F only, 3 credit(s); prereq [3101, 3144] or instr consent;  
**Instructor:** Karjanen, David J  
**Description:** Globalization as a process, social force, and ideology produces complex and sometimes volatile local responses. This course explores the interconnectedness of the world and its implications, considering not one world, but many. Although globalization has become a buzzword of the past decade, is it, in fact, so new? If not, how does globality in the present differ from ?world systems? of the past? Does the fact that people all over the world see the same movies, eat at McDonalds, or drink Coca-Cola make us all the same? How do global flows of people and things affect local identities? How do we think about interconnections between nations, states, institutions, and organizations? In answering these and other questions, we will focus on such topics as histories of globalization, transnational capitalism and the global division of labor, consumption and commodities, capital flows, migration, tourism, supranational institutions, and the future of the nation-state. We will consider how things like sugar, McDonald?, and money take on new meanings as they travel the planet. Throughout our readings, lectures, and discussions

we will be alert to different theoretical and critical approaches to the study of globalization, as well as the cultural effects of globalizing processes.

**GLOS 3643 Islam and the West**  
3 credit(s); Credit will not be granted if credit has been received for: CAS 3533;  
**Instructor:** Bashiri, Iraj  
**Description:** Student may contact the instructor or department for information.

**GLOS 3900 Topics in Global Studies**  
1-5 credit(s), max credits 15, 3 repeats allowed;  
**Instructor:** McLean, Stuart J  
**Description:** Student may contact the instructor or department for information.

**GLOS 3906 Foreign Language Immersion Program Completion**  
S-N only, 1 credit(s), max credits 2; prereq Enrolled in full course load in target language, permission of Foreign Language Immersion Program;  
**Instructor:** Knutson, April A  
**Description:** Student may contact the instructor or department for information.

**GLOS 3981W Major Project Seminar**  
A-F only, 3 credit(s); Meets CLE req of Writing Intensive;  
**Instructor:** McLean, Stuart J  
**Description:** Student may contact the instructor or department for information.

**GLOS 3993 Directed Study**  
1-5 credit(s), max credits 12, 12 repeats allowed; prereq instr consent, dept consent, college consent;  
**Instructor:** STAFF  
**Description:** Student may contact the instructor or department for information.

**GLOS 5900 Topics in Global Studies**  
1-4 credit(s), max credits 12, 3 repeats allowed; prereq Jr or sr or grad student;  
**Instructor:** McLean, Stuart J  
**Description:** Student may contact the instructor or department for information.

**GLOS 5993 Directed Studies**  
1-4 credit(s), max credits 12, 12 repeats allowed; prereq instr consent, dept 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, 12 repeats allowed; prereq instr consent, dept consent, college consent;  
**Instructor:** STAFF  
**Description:** Student may contact the instructor or department for information.

**Graduate School**

**316 Johnston Hall**

**GRAD 5102 Preparation for University Teaching for Nonnative English Speakers**  
S-N only, 2 credit(s); prereq [SPEAK score of 45 or successful completion of Foundations in English], [current or anticipated] TA assignment, instr consent;  
**Instructor:** Meyers, Colleen Marie  
**Description:**

**GRAD 5102 Preparation for University Teaching for Nonnative English Speakers**
### GRAD 5105 Practicum in University Teaching for Nonnative English Speakers
- **Schedule:**
  - S-N only, 2 credit(s); prereq [SPEAK score of 50 or successful completion of 5102], [current or anticipated] TA assignment;
  - Instructor: Beers, Barbara Lee

#### Description:
This information is accurate as of 6/9/2008 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 2008.

### GRAD 8101 Teaching in Higher Education
- **Schedule:**
  - OPT No Aud. 3 credit(s);
  - Instructor: Alexander, Ilene Dawn

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

### GRAD 8102 Practicum for Future Faculty
- **Schedule:**
  - S-N only, 3 credit(s); prereq [8101 or equiv], [native English speaker or SPEAK Test score of 55/60 or ELP rating of 1 from [5102 or 5105]];
  - Instructor: Gonzalez, Anita Marie

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

### GRAD 8200 Teaching and Learning Topics in Higher Education
- **Schedule:**
  - A-F only, 1 credit(s), max credits 4, 4 repeats allowed;
  - prereq 8101 or PFF prog director consent;
  - Instructor: Baepler, Paul Michel

#### Description:
This student-centered learning model leverages the smart use of technologies--PowerPoint, the web, personal response systems ("clickers"), and multimedia simulations--to facilitate learning.

### Health Informatics
- **Schedule:**
  - 777 Mayo (Mayo Mail Code 511)

### HINF 5431 Health Informatics II
- **Schedule:**
  - A-F only, 4 credit(s);
  - Instructor: Finkelstein, Stanley M

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

### HINF 5436 Seminar
- **Schedule:**
  - S-N only, 1 credit(s);
  - Instructor: Connelly, Donald P

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

### HINF 5499 Capstone Project for the Masters of Health Informatics
- **Schedule:**
  - A-F only, 3 credit(s); prereq [[5430, 5431] or instr consent], MHI student;
  - Instructor: Speedie, Stuart M

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

### HINF 8405 Advanced Topics in Health Informatics I
- **Schedule:**
  - 3 credit(s); prereq instr consent;
  - Instructor: Speedie, Stuart M

#### Description:
Student may contact the instructor or department for information.
Health Systems Management

HSM 4501 Writing for the Health Professions
A-F only, 3 credit(s); prereq 45 cr;
Instructor: Bahar, Keri L
Description: Writing for the health professions consists of developing skills to critically review medical literature and present research data. Research is the study of basic science or clinical area to answer questions or evaluate a hypothesis. The solutions to a research question must be found using a scientific method incorporating logic, systematic approach, and objective analysis to ensure consistency and validity. Students will support a hypothesis using extensive research of previously conducted work. Students will present data in both graphic and narrative form using style and format consistent with professional standards.

HSM 4541 Health Care Finance
A-F only, 3 credit(s);
Instructor: Riley, William J
Description: Students will review general principles of financial management with application for the health care industry. The financial and management goals of various types of medical institutions will be examined. The course will focus on the operational knowledge of financial management theory. Emphasis will be placed on how hospitals and hospital departments develop an operating & capital budget and create the proper balance for business growth and development. Students will be exposed to the challenge of medical business in the face of governmental policies, procedures and ethical issues controlling the healthcare industry.

HSM 4561 Health Care Administration and Management
A-F only, 3 credit(s); prereq 45 cr;
Instructor: Henry, William Floyd
Description: Students acquire background and skills in the business and administrative aspects of health care. Applications of business theory are applied to medical settings including: organization models, reimbursement methodologies, information systems, staff-scheduling, employee evaluation, accreditation agencies, productivity management, budget planning, and group leadership. Semester Prerequisite.

HSM 4581 Teaching in the Health Care Setting
A-F only, 3 credit(s); prereq 45 cr;
Instructor: Bahar, Keri L
Description: Students will review basic components of contemporary learning theory and how to design teaching strategies and evaluate educational outcomes. Students will be involved in assignments requiring evaluation of educational needs, development of curriculum, application of various instructional methods and assessment of learning. Clinical experiences involve student teaching with allied health practitioners, patients, and families.

Hebrew

245 Nicholson Hall

HEBR 1002 Beginning Hebrew II
5 credit(s); prereq Grade of at least [C- or S] in [1001 or 4001] or instr consent; Credit will not be granted if credit has been received for: HEBR 4002;
Instructor: Schneller, Renana Segal
Description: Hebrew 1002 is intended for students who have completed Hebrew 1001 or the equivalent. The course emphasizes four language skills: speaking, writing, listening and reading. First year language courses involve extensive student interaction, partner activities, and group work. The text of the course, Hebrew from Scratch. The book is accompanied by CD's that are designed to be studied outside class. Grammar is covered in the homework assignments and reinforced in class with a variety of paired and small group activities. Hebrew is spoken almost exclusively in class. Class attendance is critical. The course prepares students for the CLA language requirements.
Style: 33% Lecture, 33% Discussion.
Grading: 20% mid exam, 25% final exam, 20% reports/papers, 25% quizzes, 10% class participation.
Exam Format: multiple choice, fill in the blank and a small essay

HEBR 3002 Intermediate Biblical Hebrew II
4 credit(s); prereq Grade of at least [C- or S] in 3101 or instr consent;
Instructor: Jassen, Alex
Description: Student may contact the instructor or department for information.

HEBR 4107 Intermediate Biblical Hebrew II
3 credit(s); prereq Grade of at least [C- or S] in 3101 or instr consent;
Instructor: Jassen, Alex
Description: Student may contact the instructor or department for information.
Hindi 1102 Beginning Hindi
5 credit(s); prereq 1101; Credit will not be granted if credit has been received for: HNDI 4002;
Instructor: Prasad,R
Description: This is stage 2 in the program sequence. Students are presumed to have completed HNDI 1101 or have equivalent background. The course is designed to develop the language skills of the students through listening, speaking, reading, and writing. The class involves a great deal of memorization and intensive study, as well as a great deal of review of the material learned in the earlier course. Teaching methods will include oral and written drills, reading for comprehension and audio-visual method. Advance grammatical structures, oral forms, and new vocabulary will be reinforced from the lessons around everyday life situations. Establishing the weak and strong skills and how to address them - this is the major task.
Style: 25% Lecture, 25% Discussion, 25% Laboratory.
Grading: 25% mid exam, 25% final exam, 10% quizzes, 10% in-class presentation, 10% class participation, 10% laboratory evaluation, 10% problem solving.
Exam Format: Essay question, translations, oral examinations

Hindi 3132 Intermediate Hindi
5 credit(s); prereq 3131 or instr consent; Credit will not be granted if credit has been received for: HNDI 4004;
Instructor: Prasad,R
Description: This course is based on Sheela Verma’s textbook. With regular interactive group activities, video and lab sessions, the emphasis of the course will be on the ability to engage in reasonably fluent discourse in Hindi, on comprehensive knowledge of formal grammar and advanced reading, writing and comprehension.
Style: 25% Lecture, 25% Discussion, 25% Laboratory.
Grading: 25% mid exam, 25% final exam, 25% quizzes, 10% in-class presentation, 5% class participation, 10% laboratory evaluation.
Exam Format: Essay questions, translation, oral interviews

HNDI 4002 Beginning Hindi
3 credit(s); prereq 4001, grad student; Credit will not be granted if credit has been received for: HNDI 1102;
Instructor: Prasad,R
Description: This is stage 2 in the program sequence. Students are presumed to have completed HNDI 4001 or have equivalent background. The course is designed to develop the language skills of the students through listening, speaking, reading, and writing. The class involves a great deal of memorization and intensive study, as well as a great deal of review of the material learned in the earlier course. Teaching methods will include oral and written drills, reading for comprehension and audio-visual method. Advance grammatical structures, oral forms, and new vocabulary will be reinforced from the lessons around everyday life situations. Establishing the weak and strong skills and how to address them - this is the major task.
Style: 25% Lecture, 25% Discussion, 25% Laboratory.
Grading: 25% mid exam, 25% final exam, 10% quizzes, 10% in-class presentation, 10% class participation, 10% laboratory evaluation, 10% problem solving.
Exam Format: Essay question, translations, oral examinations

HNDI 4004 Intermediate Hindi
3 credit(s); prereq 4003, grad student; Credit will not be granted if credit has been received for: HNDI 3132;
Instructor: Prasad,R
Description: Student may contact the instructor or department for information.

HNDI 4162 Advanced Hindi
4 credit(s); prereq 4161 or instr consent;
Instructor: Prasad,R
Description: Student may contact the instructor or department for information.

History 614 Social Sciences Building

HIST 1011W Origins: Global Societies Before 1500
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 1017; Meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive;
Instructor: Gallia,Andrew B
Description: Student may contact the instructor or department for information.

HIST 1031W Europe and the World: Expansion, Encounter, and Exchange to 1500
4 credit(s); prereq Undergrad, non-hist major; Meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive;
Instructor: Matar,Nabil I
Description: Student may contact the instructor or department for information.

HIST 1032W Western Civilization, From 1500 to Present
4 credit(s); prereq [Fr or soph (any)] or [jr or sr, non-Hist mjr only]; Meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive;
Instructor: Welke,Barbara Young
Description: This writing intensive survey course will acquaint undergraduate students with major themes in the history of the United States from Reconstruction to the bombings of September 11th. Lectures and weekly discussion sections will explore a range of topics including reconstruction, immigration, the response to industrialization, WWII, the Great Depression and the New Deal, WWII, the Cold War, rights movements from the 1950s through the 1970s, the Vietnam War, Watergate, and the rise of the New Right. Lectures provide overview. Discussion sections emphasize analysis of historical problems and of primary documents. Writing assignments build analytical and research skills.
Style: 50% Lecture, 50% Discussion.
Grading: 25% mid exam, 25% final exam, 20% reports/papers, 15% special projects, 15% laboratory evaluation.
Exam Format: short answer and essay

HIST 3010 Historical Research Seminar: Making Minnesota
A-F only, 3 credit(s), max credits 12, 4 repeats allowed; prereq Must have completed one 1xxx or 1 3xxx level
HIST 3052 Ancient Civilization: Greece
3 credit(s);
Instructor: Evans, John Karl
Description: For a syllabus, please visit www.tc.umn.edu/~evans002/.
Style: 100% Lecture
Grading: 33% mid exam, 67% final exam.
Exam Format: take-home essay

HIST 3152 British History From the Seventeenth Century
4 credit(s); prereq credit will not be granted if credit received for: 3152W; Meets CLE req of Citizenship/Publ
Ethics Theme; meets CLE req of Historical Perspective Core;
Instructor: Clark, Anna Kirsten
Description: This course covers British history from the 17th century, a dramatic era beginning with the Civil War and the execution of Charles I. Britain then entered the convolutions of the industrial revolution and the burgeoning rebellious Atlantic world. During the 19th century, Britain became a superpower, the most wealthy and powerful nation, complacent in its Victorian values and confident it could rule the world after all, the sun never set on the British empire. But during the 20th century, the colossus faltered, after the disillusionment of the first world war and the devastating depression. Heroism returned with the Battle of Britain, but after World War II, Britain lost its empire. However, Britain rebuilt, establishing a welfare state which guaranteed health care to all, and regenerating its prosperity. We will take the story up to the present, looking at Thatcher's rise and fall, and the rebirth of multicultural Cool Britannia. For more information write clark106@tc.umn.edu.
Style: 70% Lecture, 30% Discussion.
Grading: 25% mid exam, 25% final exam, 25% reports/papers, 25% class participation.
Exam Format: essay exams

HIST 3348 Women in Modern America
3-4 credit(s); Credit will not be granted if credit has been received for: GWSS 3408; Meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core;
Instructor: Deutsch, Tracey A
Description: This course explores significant shifts and compelling moments in the history of women in the United States from 1890 to the present. Topics include women's paid and unpaid labor, consumer culture, women and militarization, and second wave feminism. Throughout we will pay special attention to the ways in which women's history shaped United States history and to the significance of race and class in women's lives.
Style: 80% Lecture, 20% Discussion.
Grading: 20% mid exam, 20% final exam, 40% reports/papers, 5% quizzes, 15% class participation.
Exam Format: short answer and essay

HIST 3402W Modern Latin America 1825 to Present
4 credit(s); Credit will not be granted if credit has been received for: LAS 3402W; Meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: This course surveys developments in Latin America from the Enlightenment and Age of Independence to the rise of bureaucratic authoritarianism (ca. 1750-present). The course will focus on the rise of the nation-state, art, culture, and diplomatic relations within Hispanic America. Themes will include race, class, gender, sexuality, and space.
Style: Monday classes may not meet for the full period every week.
Grading: 20% final exam, 50% reports/papers, 10% class participation, 20% other evaluation. informal writing assignments
Exam Format: essay

HIST 3423 Central American Revolutions
3 credit(s); Credit will not be granted if credit has been received for: CHIC 3423; Meets CLE req of Citizenship/Publ
Ethics Theme; meets CLE req of International Perspect Theme;
Instructor: McNamara, Patrick J
Description: Throughout the 1970s and 1980s, civil war and political violence swept the Central American isthmus. In an attempt to understand both the domestic and international factors that contributed to this upheaval, this course will examine the social, political, and economic issues that have shaped Central American history for nearly two centuries. We will focus primarily on the influences of colonial histories, capitalism, development, ethnic and racial conflict, foreign intervention, the Catholic Church, and civil war throughout the region. We will emphasize both nation-state formation from the perspective of six independent countries (El Salvador, Guatemala, Honduras, Panama, Costa Rica, and Nicaragua), and broader region-wide experiences around export capitalism, military interventions, armed uprisings, popular protest, emigration, and ethnic conflict. The course is organized around these two major approaches. We will begin with a comparative region-wide perspective as, "The Isthmus of Central America: Colonialism, Revolution, and the Struggle for Autonomy." We will then focus on the six independent nations in the course section called, "The Nations of Central America: Independence, Nationalism, and the Struggle for Citizenship."
Style: 70% Lecture, 30% Discussion.
Grading: 25% mid exam, 25% final exam, 25% reports/papers, 25% class participation.
Exam Format: essay exams

HIST 3431 Early Africa and Its Global Connections
4 credit(s); Credit will not be granted if credit has been received for: AFRO 3431; Meets CLE req of Historical Perspective Core;
Instructor: Giles-Vernick, Tamara L
Description: Early African farmers and hunters, men and women, kings and queens, commoners and slaves long stood at the center - not the margins -- of global change. From the rise of agriculture to the culmination of the slave trades, Africans actively borrowed ideas, technologies, foods, and guns, and other goods from Asian and European "strangers". But they profoundly influenced these strangers as well, contributing innovative ideas, technologies, cultural expressions, and wealth. Through close study of oral traditions, epics, archaeological data, food, autobiography, and film, we will investigate early Africa's global connections. Environment plays an important role in our study; we explore the ways that Africans creatively adapted to and altered the continent's diverse environments, and how their choices shaped the lands of societies in which they lived. By immersing ourselves in Africa's early history, we will also begin to understand and to critique how and why contemporary western media has come to portray Africans as "marginal" to global change.
Style: 70% Lecture, 30% Discussion.
Grading: 35% mid exam, 25% final exam, 15% reports/papers, 25% class participation.
Exam Format: Essay and Identification

HIST 3462 Asia in the Age of Empires (1600-1850): Everyday Life and Contacts in Early Modern Asia
3-4 credit(s), max credits 4, 1 repeat allowed; Credit will not be granted if credit has been received for: EAS 3462; Meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme;
Instructor: Isett, Christopher Mills
Description: This course is designed to introduce the main themes of East Asian history since 1500, focusing primarily on the histories of China, Japan, Korea and Vietnam. The course examines long-term changes, trends, and continuities in society, economy, politics and culture. The course also looks at the connections within Asia and between Asia and the rest of the world over this period. Class time will be devoted mostly to lectures, but will also include time for questions, discussion, and film.
Grades are based on performance in mid-term (25%), final exam (35%), two 5-6 page papers (15% each), and participation in discussion (10%). The reading load is moderate to heavy, with about 75 pages a week in translate primary sources and...
secondary books.
Style: 70% Lecture, 20% Discussion.
Grading: 25% mid exam, 35% final exam, 30% reports/papers, 10% class participation.
Exam Format: Written exam/blue book/essay and identifications

HIST 3465W China in the Ming and Qing Dynasties
3 credit(s); Credit will not be granted if credit has been received for: EAS 3465W; Meets CLE req of Writing
Intensive;
Instructor: Wautner, Ann Beth
Description: Student may contact the instructor or department for information.

HIST 3469 History of Women and family in China, 1600-2000
3 credit(s);
Instructor: Wang, Liping
Description: Student may contact the instructor or department for information.

HIST 3479 History of Chinese Cities and Urban Life
A-F only, 3-4 credit(s), max credits 4, 1 repeat allowed; Credit will not be granted if credit has been received for: HIST 5479;
Instructor: Wang, Liping
Description: Student may contact the instructor or department for information.

HIST 3487 The Vietnam Wars: French Colonialism and U.S. Intervention in Indochina
3 credit(s);
Instructor: Lee, Mai Na M.
Description: Student may contact the instructor or department for information.

HIST 3489 20th Century India
A-F only, 3 credit(s);
Instructor: Skaria, Ajay
Description: This course will look at the making of contemporary India by focusing on two themes. First, it will explore the transformation of forms of rule that have led to the emergence of India as 'the world's largest democracy'. Beginning with the consolidation of colonial power in the late nineteenth century, it will go on to look at how nationalists such as Nehru or Gandhi mobilized against the British, and articulated differing visions of the nation. We will also study the institutions and practices that have been central to democratic politics in India since independence in 1947. The second theme of the course will be the transformations in popular culture since the late nineteenth century. In particular, we will focus on the increasing domination of a Hindu national identity that has helped the emergence of the BJP today as one of two major political parties. We will also look at the domination of a middle class culture that has accompanied the emergence of the India as a nation that aspires to be a global economic power. We will also explore movements and social transformations that have questioned dominant forms of popular culture.
Style: 80% Lecture, 20% Discussion.
Grading: 25% mid exam, 25% final exam, 25% reports/papers, 25% class participation.
Exam Format: essay

HIST 3507 History of Modern Egypt
A-F only, 3 credit(s);
Instructor: Hakim, Carol
Description: Student may contact the instructor or department for information.

HIST 3546 Islam in the West
3 credit(s); Credit will not be granted if credit has been received for: CAS 3533;
Instructor: Bashiri, Iraj
Description: Student may contact the instructor or department for information.

HIST 3731 Citizens and the State in Modern France From the Revolution of 1789 to Post-de Gaulle: 1789-1991
3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Historical Perspective Core;
Instructor: Lorcin, Patricia M. E
Description: Student may contact the instructor or department for information.

HIST 3767 Eastern Orthodoxy: History and Culture
3 credit(s);
Instructor: Stavrou, Theofanis G
Description: Student may contact the instructor or department for information.

HIST 3797 History of Population
3 credit(s);
Instructor: Ruggles, Steven
Description: Student may contact the instructor or department for information.

HIST 3812 The Civil War and Reconstruction
3 credit(s);
Instructor: Stone, Paul Clois
Description: This course begins with the United States' decision to drop atomic bombs on Hiroshima and Nagasaki in August 1945. These events ended the war and shaped an atomic age at home and abroad. In the wake of a war that devastated Europe and Russia, the United States emerged as a superpower. In these hopeful decades, the United States? military and economic superiority was undisputed, but there was little consensus about how they should use their military might as the Cold War heated up or about the larger impact of affluence, consumption, and rights consciousness upon the Baby Boom generation. While the prosperity and vision of the nation seemed boundless, internal struggles about the rights of blacks, Latinos/as, Asian Americans, women, and workers both challenged the enduring narrative of the American Dream and evoked the possibility that such a dream might finally be accessible to the vast majority of Americans for the first time in the nation's history. The optimism of the postwar period was shaken by a series of crises from the brutalities of racial oppression, and the tragedies of the Vietnam Wars, to the eventual resignation of President Nixon, and the energy crises and economic recessions that plagued the 1970s. Notwithstanding the post-1975 perception that the nation was in decline, evidence of economic, social, and cultural progress was as readily available as were signs of stagnation. Growth in the West and the South and suburban and exurban expansion put the American Dream within reach of a new generation even as the Rust Belt and the growth of a segregated urban underclass in the North evinced continuing inequalities. The Cold War ended with little violence and the United States retained its military superiority. Yet the lessons learned from Vietnam complicated U.S. foreign policy, encouraging an isolationism that offered little in the way of international leadership in the face of a series of
brutal civil wars. Globalization opened new marketplaces and the nation?is imports and exports expanded as did legal and illegal immigration, but low wages also proliferated. This course examines the tensions between the complicated perceptions and realities of postwar U.S. history through an examination of the political, cultural, racial, gender, and class cleavages and convergences of the post-war period; the impact of hot and cold wars on domestic and foreign relations; the development and deployment of anti-communism; the Civil Rights, Black Power, New Left, American Indian, Chicano, Asian American, Women's Liberation and Gay Liberation movements; the Vietnam Wars; post-1965 immigration and the role of the United States in the global marketplace; the rise of the New Right and Evangelical politics; the culture wars; and the role of the United States in the Middle East from the CIA?is participation in the 1953 coup in Iran and the oil crises to the advent of the War on Terror.

**Style:** 75% Lecture, 10% Film/Videoc 15% Discussion.
**Grading:** 20% mid exam, 30% final exam, 50% reports/papers.

**HIST 3845 African American History, 1865 to Present**

**A-F only, 4 credit(s); Credit will not be granted if credit has been received for:** AFRO 3865; Meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core;

**Instructor:** Lindquist,Malinda A

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

**HIST 3871 American Indian History, Pre-Contact to 1830**

**3 credit(s); Credit will not be granted if credit has been received for:** AMIN 3871; Meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core;

**Instructor:** Chang,David Anthony

**Description:** American Indian history is far more than just the history of the loss of lands to the United States--which is the way we normally encounter it in our textbooks. It is the history of societies that were changing long before Columbus ever stumbled ashore in the Caribbean. It is the history of changing ideas about men and women, humans and spirits, people and animals. It is the story of work--whaling and the fur trade and farming and more. It is the story of grand confederacies of native nations, marriages between Algonquian women and French men, religious conflict between Chumash people and Spanish priests, and intrigue, alliances, and warfare among scores of native societies, five empires, and two new settler nations. This is the rich and diverse history we will explore together in this class. Students should come prepared to use their intellectual talents, to draw on their knowledge of history, to exercise their reading and writing abilities, and to share their ideas.

**Style:** 60% Lecture, 30% Discussion. documentary film

**HIST 3877 Asian American History, 1850-Present**

**3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core;**

**Instructor:** Lee,Erika

**Description:** Asian immigrants began to arrive in the United States in the mid 19th century. Today, about half of the people immigrating today are from Asia. This course is a broad and comparative survey of Asian Americans (Chinese, Japanese, Korean, Filipino, South Asian, and southeast Asian Americans, particularly Hmong and Vietnamese) from 1850 to the present. Topics include: immigration, anti-Asian discrimination and exclusion, labor, women, family, and communities, World War II and Asian America, including the internment of Japanese Americans. &quot;new &quot; immigration from Asia after 1965, war in Southeast Asia and refugee migration and communities in the U.S., the Asian American movement and the struggle for equality, and contemporary issues related to Asian Americans. This course is open to undergraduate majors and non-majors. Reading assignments will include texts, articles, and autobiographies. We will view films and use the internet to compliment lectures and class discussions.

**Style:** 70% Lecture, 30% Discussion.
**Grading:** 25% mid exam, 35% final exam, 20% reports/papers, 20% class participation.

**Exam Format:** Essay

**HIST 3959 How to Do History**

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

**Instructor:** Wolfe,Thomas C

**Description:** History is not about memorizing textbooks or chronologies. History is more fun, more challenging, more creative, and more political. This course aims to prepare you to be a good producer and consumer of history, whether you are writing a history senior paper or simply learning what history is about. You will be introduced to various issues, methodologies, styles, and materials of history writing as well as to critical thinking. There will be various kinds of archival and other exercises, in addition to lecture.

**HIST 3959H Honors: How to Do History**

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

**Instructor:** Wolfe,Thomas C

**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 repeats 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 3990 Historical Internship**

**1-4 credit(s), max credits 8; prereq instr consent;**

**Instructor:** Hooiland,Tim

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

**HIST 4071 History of Rome to 78 B.C.**

**3 credit(s); prereq An appropriate introductory course is recommended;**

**Instructor:** Evans,John Karl

**Description:** The syllabus can be found at: http://www.tc.umn.edu/~evans002/

**Style:** 100% Lecture.

**Grading:** 33% mid exam, 67% final exam.

**Exam Format:** take-home essay

**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:** Bachrach,Bernard S

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

**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:** Mizuno,Hiroshi

**Description:** Student may contact the instructor or department
HIST 4961V Honors: Major Paper  
A-F only, 4 credit(s); prerequisite department consent, instructor consent; sign up in Undergraduate Studies Office two sem in advance; Meets CLE req of Writing Intensive;  
Instructor: Hakim, Carol  
Description: Student may contact the instructor or department for information.  

HIST 4961V Honors: Major Paper  
A-F only, 4 credit(s); prerequisite department consent, instructor consent; sign up in Undergraduate Studies Office two sem in advance; Meets CLE req of Writing Intensive;  
Instructor: Blumenthal, Susanna  
Description: Student may contact the instructor or department for information.  

HIST 4961W Major Paper  
A-F only, 4 credit(s); prerequisite department consent, instructor consent; sign up in Undergraduate Studies Office two sem in advance; Meets CLE req of Writing Intensive;  
Instructor: STAFF  
Description: The major paper seminar is the capstone course for history majors. After spending many semesters reading other scholars' ideas and interpretations, you now have the opportunity to research, analyze, and write your own original work of scholarship. It can be one of the most rewarding intellectual experiences of your time at the University of Minnesota. The senior paper consists of a 20-30 page paper based on original research in primary sources (sources like letters, diaries, newspaper articles, interviews, government documents, etc., rather than scholarly articles or books). It can be on a topic of your choosing, but you are highly encouraged to discuss your paper topic with the instructor before the course begins. Refining the topic and even changing it often occurs during the course of the semester, but it is important to have some ideas before hand. This semester-long course introduces students to the primary methods of historical research, analysis, and writing and guides students through the process of defining a topic, finding relevant secondary and primary sources, writing a research proposal, conducting the research, outlining and writing a first draft, and revising that draft to create a final paper.  

HIST 5265 20th-Century Russia: The Collapse of Imperial Russia, the Revolutions, and the Soviet Regime  
3 credit(s);  
Instructor: Stavrou, Theofanis G  
Description: Student may contact the instructor or department for information.  

HIST 5421 Gender in Latin American History  
3 credit(s);  
Instructor: Chambers, Sarah C  
Description: Student may contact the instructor or department for information.  

HIST 5474 Sex and the Politics of Desire: Japan and Beyond  
A-F only, 3 credit(s); prerequisite graduate student or instructor consent;  
Instructor: Mizuno, Hiroomi  
Description: Student may contact the instructor or department for information.  

HIST 5611 Proseminar in Medieval History  
A-F only, 3 credit(s); prerequisite graduate student or instructor consent;  
Instructor: Bachrach, Bernard S  
Description: Student may contact the instructor or department for information.  

HIST 5671 Proseminar: Modern Britain  
A-F only, 3 credit(s); prerequisite instructor consent;  
Instructor: Elfenbein, Andrew  
Description: This graduate level seminar will focus on intense reading, discussion, research in primary sources, and analytical writing. It will cover Britain from the 17th century to the present, concentrating on the themes of liberal philosophies and practices, class relations, gender, and empire. We will trace the beginnings of liberal thought with John Locke and contrast liberalism with competing traditions of classical republicanism, radicalism, and conservatism. We will ask why liberalism became so different from the 19th to the 20th century, from advocating minimal government to setting up the welfare state. Why did liberalism fail in the early 20th century and the traditional labor movement fail by the late 20th century? Another theme will be class conflict. Is class a useful way to look at British society? How does gender intersect with class? Why did it take women and working men so long to gain access to the political system? Is Britain really a democratic society? We will also examine why Britain acquired and lost an empire, and the impact of empire on domestic society, discussing such issues as the anti-slavery movement, popular imperialism, and immigration.  

HIST 5797 Methods of Population History  
3 credit(s);  
Instructor: McCaa, Robert E  
Description: Student may contact the instructor or department for information.  

HIST 5831 Cultural Fallout: The Cold War and Its Legacy: Readings  
A-F only, 3 credit(s);  
Instructor: May, Elaine Tyler  
Description: Student may contact the instructor or department for information.  

HIST 5900 Topics in European/Medieval History: Christians, Muslims, and Jews in the Middle Ages  
A-F only, 3 credit(s), maximum repeated 16 times; prerequisite graduate student or instructor consent;  
Instructor: Lower, Michael T  
Description: Student may contact the instructor or department for information.  

HIST 5900 Topics in European/Medieval History: Nationalism/National Identification in Modern Europe  
A-F only, 3 credit(s), maximum repeated 16 times; prerequisite graduate student or instructor consent;  
Instructor: Cohen, Gary B.  
Description: Student may contact the instructor or department for information.  

HIST 5910 Topics in U.S. History: Engendering Race in American History  
1-4 credit(s), maximum repeated 16 times; prerequisite graduate student or instructor consent;  
Instructor: Chang, David Anthony  
Description: This course will explore the politics of U.S. history by reading in the intellectual and cultural history of the nineteenth and twentieth centuries, particularly as it concerns American Indian, Hawaiian, and African American interventions on the meaning of colonialism and race. The course centers on cultural and intellectual history and politics, but because these are fields of inquiry that are best studied in broadly interdisciplinary ways, it incorporates readings in theory and cultural studies, as well as foundational documents by nineteenth-century American Indian, Hawaiian, and African American intellectuals.  

HIST 5960 Topics in History: Teaching Global Cities as Sites of History  
1-4 credit(s), maximum repeated 16 times; prerequisite graduate student or instructor consent;  
Instructor: Maynes, Mary Jo  
Description: Student may contact the instructor or department for information.  

HIST 8900 Topics in European/Medieval History  
A-F only, 3 credit(s), maximum repeated 16 times; prerequisite graduate student or instructor consent;  
Instructor: Cohen, Gary B.  
Description: Student may contact the instructor or department for information.
HMED 3065 Body, Soul, and Spirit in Medieval and Renaissance European Medicine
A-F only, 3 credit(s); Meets CLE req of Historical Perspective Core;
Instructor: Shackelford,Jole Richard
Description: The body is a natural topic in today's society. As a nation and as individuals we are often preoccupied with our physical self, our appearance, our health, our pleasures, and our material possessions. Our modern identity crises are moral as well as legal, physical as well as psychological, but are often framed in terms of scientific measures that determine the health and viability of the mind and body. But for the medieval European Christian, the mind and body were necessarily viewed in a spiritual as well as a corporate context - it made no sense whatsoever to think of the health of the body apart from the health of the soul, or the life of the individual body apart from the life of the communal body. During this semester we will examine how medieval and Renaissance European medical writers understood the body, soul, and spirit and how these medical conceptions affected extra-medical concerns. Specific topics to be considered include: The body and soul in medieval theology and cosmology; Religious conceptions of the body and soul; Medical conceptions in the medieval world; Medieval and Renaissance psychology; Medical astrology and its consequences; The medical normal and abnormal body; The medicine of reproduction and sexual identity; Death, burial, dissection, and resurrection in medical and religious perspective; The Macrocosmic body and the microcosmic body; Limits to human power and authority over the individual body; The anatomical and chemical body and spirit.
Style: 95% Lecture, 5% Discussion.
Grading: 40% final exam, 60% other evaluation. 2 mid-term examinations, 30 % each.
Exam Format: Essays and short prose identifications or explanations.

HMED 5201 History of Medicine from 1700 to 1900
3 credit(s); prereq 5200;
Instructor: Gunn,Jennifer
Description: This course is the second semester of a two-semester chronological survey of the social and intellectual history of western medicine. It does not require special technical knowledge of the biomedical sciences, nor is Health Care in History I a prerequisite for enrolling in Health Care in History II.
The approach of this course is to look at medicine not as an isolated set of ideas and practices in a linear march of scientific progress, but as an integral part of a culture. We seek to understand how ideas about the cause of disease, treatments, and the organization of care for the sick reflect the particular social historical context. HMED 3002 will focus on the period from the early nineteenth century to the present. We will investigate changing medical and scientific ideas about the body and disease, alternative medical systems, relationships between health care providers and patients, and the social organization of health care delivery from charity hospitals to HMOs and national health services. The course will examine the growth of medicine's cultural authority along with professionalization, the increased incorporation of science and technology, and changing standards for education and practice. Public health, prevention, and responses to infectious disease also occupy a prominent place in this history. Students will have the opportunity to touch the past directly through the use of rare books and documents in the Wangensteen Historical Medical Library.
Style: 65% Lecture, 35% Discussion.
Grading: 10% mid exam, 15% final exam, 60% reports/papers, 15% class participation.
Exam Format: Essay and short answer

HMED 3040 Human Health, Disease, and the Environment in History
3 credit(s); Meets CLE req of Environment Theme; meets CLE req of Historical Perspective Core;
Instructor: Gunn,Jennifer
Description: Introduction to changing relationship of human health and the environment. Ways in which human-induced environmental changes have altered our experiences with disease and our prospects for health. Four in-class 20-minute essays in lieu of a midterm (no final); research paper (5-7 pages plus two intermediate stages in the project) and group research presentation; book review (3 pages), and library skills "scavenger hunt." Although the class will have about 45 students, it is conducted as a seminar as much as possible, with class discussions and small group work.
HSCI 1214 Life on Earth: Perspectives on Biology
4 credit(s); Credit will not be granted if credit has been received for: HSCI 1214W; Meets CLE req of Environment Theme; meets CLE req of Historical Perspective Core; Instructor: Jones, Susan D.
Description: This course explores how humans have developed theories and observations over the past 400 years about life on earth. Applying a historical perspective to issues in today's world, we will explore scientific ideas and debates across national boundaries. Specific topics include: origins of life on earth; evolution and natural theology; ecosystems; agricultural and industrial environmental degradation and species regeneration; the Guns, Germs and Steel hypothesis; and disease threats such as avian influenza.
Style: 60% Lecture, 40% Discussion.
Grading: 20% mid exam, 20% final exam, 40% reports/papers, 20% class participation.
Exam Format: Essay

HSCI 1214W Life on Earth: Perspectives on Biology
4 credit(s); Credit will not be granted if credit has been received for: HSCI 1212; Meets CLE req of Environment Theme; meets CLE req of Historical Perspective Core; Instructor: Jones, Susan D.
Description: This course explores how humans have developed theories and observations over the past 400 years about life on earth. Applying a historical perspective to issues in today's world, we will explore scientific ideas and debates across national boundaries. Specific topics include: origins of life on earth; evolution and natural theology; ecosystems; agricultural and industrial environmental degradation and species regeneration; the Guns, Germs and Steel hypothesis; and disease threats such as avian influenza. Lecture meets with HSCI 1212; discussion section focuses on writing.
Style: 60% Lecture, 40% Discussion.
Grading: 15% mid exam, 30% final exam, 45% reports/papers, 10% class participation.
Exam Format: Essay

HSCI 1715 Technology and Civilization: Waterwheels to the Web
4 credit(s); Meets CLE req of Historical Perspective Core; meets CLE req of International Perspective Theme; Instructor: Thomas, Mary Margaret
Description: Student may contact the instructor or department for information.

HSCI 1814 Revolutions in Science: The Babylonians to Newton
4 credit(s); Credit will not be granted if credit has been received for: HSCI 3814; Meets CLE req of Historical Perspective Core; meets CLE req of International Perspective Theme; Instructor: Allchin, Douglas
Description: We use case episodes to understand the origins of science and how it became transformed into “modern” practice: how many cultures came to systematize knowledge of the natural world and how our current system of investigation evolved in the West. We consider ideas, methods, institutions and cultural contexts. We also develop analytical skills of historical interpretation. Student projects include a map interpretation and participatory historical simulation. Students read original documents.
Style: 50% Discussion, interactive lecture
Grading: 25% reports/papers, 33% special projects, 42% other evaluation. Student designated (essay, exam, journal)
Exam Format: Essay

HSCI 3242 The Darwinian Revolution
3 credit(s); Credit will not be granted if credit has been received for: HSCI 5242; Instructor: Borrello, Mark E
Description: Charles Darwin's theory of evolution has generated controversy and comment since the publication of On the Origin of Species in 1859. It has been berated by clerics, embraced by capitalists and communists simultaneously and consistently debated by scientists themselves for the past century and a half. What is it about this idea that makes it so compelling? Why is it that so many people have so many opinions about the theory of evolution? In this course we will look at the history of the theory of evolution and attempt to make sense of these questions. Through a careful historical and philosophical analysis we will gain a deeper understanding of an idea that has become increasingly common yet remains persistently contentious. Our examination of evolutionary theory will be focused initially on Darwin and his work in the Victorian context. We then will look at the controversies over the teaching of evolution in the United States in the twentieth century, from the Scopes Monkey Trial to the current debates. Finally, we will look at the application of evolutionary theory to human behavior. The effort to understand human behavior in evolutionary terms arguably began with Darwin himself, however, the contemporary debate was initiated in the mid-1970's by Harvard entomologist Edward O. Wilson. In the final section of the course we will look at Wilson's program called sociobiology and continue our analysis into the present and an examination of the field of evolutionary psychology.

HSCI 3332 Science and American Culture
3 credit(s); Credit will not be granted if credit has been received for: HSCI 5332; Meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core; Instructor: Kohlstedt, Sally Gregory
Description: Student may contact the instructor or department for information.

HSCI 3401 Ethics in Science and Technology
3 credit(s); Credit will not be granted if credit has been received for: HSCI 5401; Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Historical Perspective Core; Instructor: Seidel, Bob
Description: The history of science and technology offers significant episodes for ethical analysis. This course is devoted to presenting such topics as the historical differentiation of natural and moral philosophy as exemplified in the works of Francis Bacon and 17th-century scientific academies and societies; the ethical aspects of preindustrial technological societies; attempts to formulate ethical systems based on scientific exemplars such as utilitarianism, social Darwinism, and eugenics; the evolution of engineering ethics, problems in the ethics of scientific research such as the Tuskegee and Holmes projects; the scientific roots of National Socialism; ethical implications of the development of nuclear weapons; and ethical problems in genetic research and engineering. Students will apply this knowledge to the formulation of an appropriate ethical code appropriate to the highly technological environment of the 21st century. They will also discuss ethical issues in weekly discussion sessions of permanent small groups. In addition to historical readings and studies of ethics in science and technology, students will be presented with analyses of the instructor's research in military R&D and national laboratories. Students of science, engineering, medicine, social scientists and humanists interested in the role of science and technology in society are welcome. The course fulfills CLE historical perspective core curriculum and citizenship and public ethics theme requirements.
HSCI 3715 Technology and Civilization: Waterways to the Web
4 credit(s); Credit will not be granted if credit has been received for: HSCI 1814; Meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; Instructor: Alchlin, Douglas
Description: Course meets with and parallels HSCI 1814. This section is for (future) science teachers and includes assembling material for an HPS-oriented curriculum module.
Grading: 33% special projects; 25% written homework, 42% other evaluation. Includes assembling material for an HPS-oriented science curriculum module (42%). See http://www.tc.umn.edu/~alch001/1814/under/ 

HSCI 3814 Revolutions in Science: The Babylonians to Newton
4 credit(s); Credit will not be granted if credit has been received for: HSCI 1814; Meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; Instructor: Thomas, Mary Margaret
Description: Student may contact the instructor or department for information.

HSCI 5242 The Darwinian Revolution
3 credit(s); Credit will not be granted if credit has been received for: HSCI 3242; Instructor: Borrello, Mark E
Description: Course meets with and parallels HSCI 3242. This section is for (future) science teachers and includes assembling material for an HPS-oriented curriculum module.
Grading: 33% special projects; 25% written homework, 42% other evaluation. Includes assembling material for an HPS-oriented science curriculum module (42%). See http://www.tc.umn.edu/~alch001/1814/teachers/

HSCI 5332 Science and American Culture
3 credit(s); Credit will not be granted if credit has been received for: HSCI 3332; Meets CLE req of Cultural Diversity Theme; Instructor: Kohlstedt, Sally Gregory
Description: Student may contact the instructor or department for information.

HSCI 5401 Ethics in Science and Technology
3 credit(s); Credit will not be granted if credit has been received for: HSCI 3401; Meets CLE req of Citizenship/Publ Ethics Theme; Instructor: Seidel, Bob
Description: The history of science and technology offers significant episodes for ethical analysis. This course is devoted to presenting such topics as the historical differentiation of natural and moral philosophy as exemplified in the works of Francis Bacon and 17th-century scientific academies and societies; the ethical aspects of preindustrial technological societies; attempts to formulate ethical systems based on scientific exemplars such as utilitarianism, social Darwinism, and eugenics; the evolution of engineering ethics; problems in the ethics of scientific research such as the Tuskegee and Holmsberg projects; the scientific roots of National Socialism; ethical implications of the development of nuclear weapons; and ethical problems in genetic research and engineering. Students will apply this knowledge to the formulation of an appropriate ethical code appropriate to the highly technological environment of the 21st century. They will also discuss ethical issues in weekly discussion sessions of permanent small groups. In addition to historical readings and studies of ethics in science and technology, students will be presented with analyses of the instructor’s research in military R&D and national laboratories. Students of science, engineering, medicine, social scientists and humanists interested in the role of science and technology in society are welcome.
Style: 50% Lecture, 35% Discussion.
Grading: 25% mid exam, 25% final exam, 25% reports/papers, 5% quizzes, 5% in-class presentation, 5% class participation, 5% problem solving.

HSCI 8113 Research Methods in the History of Science, Technology, and Medicine
A-F only; 3 credit(s); Credit will not be granted if credit has been received for: HED 8113; Instructor: Kohlstedt, Sally Gregory
Description: Student may contact the instructor or department for information.

HSCI 8830 Topics in the History of Science, Technology, and Medicine: History of Chemistry
A-F only; 3 credit(s); Max credits 9, 3 repeats allowed; prereq instr consent
Instructor: Seidel, Bob
Description: Student may contact the instructor or department for information.

HMNG 1012 Beginning Hmong
5 credit(s); prereq 1011; Credit will not be granted if credit has been received for: HMNG 4002; Instructor: LeYang, Maxwell
Description: This course is the last of the two-semester sequence of beginning Hmong that teaches Hmong to students with little or no exposure to the Hmong language. Students who have inherited the basics of the written language are advised to take the Accelerated Hmong course offered this semester. The contents of the course continue to include the exposure of the primary level of the written language, basic everyday conversation, and elementary vocabularies. The course will re-enforce students on Hmong alphabets (tone markers, singular and plural vowels and consonants), pronunciation, sentence structure, and the parts of speech. Class activities will be designed surrounding family, social events, health, education, and consumer themes. A minimum exploration of Hmong culture will be emphasized. Upon completion of this course, students are expected to have acquired a vast amount of Hmong vocabularies. Students must be able to converse in moderate Hmong dialogues and compose simple paragraphs. Topics covered in this semester include: 1) Different forms of verbs 2) Gender indications 3) At school, at work, at the store 4) Hmong families and clan names 5) Conversational practices and discussions Required Texts: The texts for the course are Basic Hmong Book One and Phau Xyaum Ntyam Ntawv Hmong Dawb. You can find Basic Hmong Book One at the Bookstores on Campus and Phau Xyaum Ntyam Ntawv Hmong Dawb at Paradigm in Dinky Dome. Legend: * = Required Style: 60% Lecture. Work group, class activities, presentation, audio/video, etc.
Grading: 30% final exam, 40% quizzes, 10% class participation, 20% other evaluation. Homework and project
Exam Format: Multiple choices, fill in the blanks, short answers, and oral.

HMNG 4006 Accelerated Intermediate Hmong
5 credit(s); prereq 1015, ability in basic spoken Hmong; Credit will not be granted if credit has been received for: HMNG 4002; Instructor: Vang, Bee
Description: This course is designed for students who have already been exposed to the Hmong alphabets and have the basic skills in reading, writing, and listening. The pace for this course is very fast. One semester of this course is equivalent to two semesters of Intermediate Hmong. It is expected that the students understand all materials before coming to class to fully participate in the session. The main objectives of this course are to 1) reinforce basic reading, writing, listening, and speaking skills using the Hmong Romanized Phonetic Alphabet (RPA); 2) strengthen the students’ ability to communicate and negotiate meanings in basic Hmong at the inter-personal level in the classroom, at home, and/or in the community; and, 3) to increase students’ vocabulary through selected topics.
Style: 50% Lecture, 35% Discussion.
Grading: 25% mid exam, 25% final exam, 25% reports/papers, 5% quizzes, 5% in-class presentation, 5% class participation, 5% problem solving.

Exam Format: Essay
Functions of self, family, workplace and community will be covered. The course will be taught utilizing lectures, reading and writing practice, projects, basic dialogues, group discussions, and class exercises.

**Style:** 60% Lecture, 5% Film/Video, 10% Discussion, 20% Small Group Activities, 5% Student Presentation.

**Grading:** 20% mid exam, 20% final exam, 20% special projects, 20% quizzes, 10% written homework, 10% attendance.

**HMNG 3022 Intermediate Hmong**

5 credit(s); prereq 3021; Credit will not be granted if credit has been received for: HMNG 4004;

**Instructor:** Vang, Bee

**Description:** This course is designed for students who have already taken the Beginning Hmong courses. It is expected that the student understand all materials before coming to class to fully participate in the session. The main objectives of this course are to 1) reinforce basic reading, writing, and speaking using the Hmong Romanized Phonetic Alphabets (RPA); 2) to strengthen/enhance the students’ ability to communicate and negotiate meanings in basic White Hmong at the inter-personal level in the classroom and/or school settings; and, 3) to increase students’ vocabulary through selected topics. The course will be taught utilizing lectures, practice or pronunciation, basic dialogues, group discussions, and class exercises. Upon completion of this course, it is expected that students will: 1. Understand sentence length utterances on a variety of topics during face to face or short telephone conversations. 2. Be able to handle successfully a variety of uncomplicated, basic, and communicative task in social situations. 3. Be able to read consistently with increase understanding simple connected texts dealing with variety of basic and social needs. 4. Be able to meet a number of practical needs through the writing of short simple letters. 5. Be able to indentify key elements of Hmong culture and history including family structure, clans, religion, customs, and folktales. 6. Increase their understanding on the usage of Hmong grammatical rules.

**Style:** 60% Lecture, 5% Film/Video, 20% Discussion, 10% Small Group Activities, 5% Student Presentation.

**Grading:** 25% mid exam, 25% final exam, 10% special projects, 10% quizzes, 15% written homework, 15% attendance.

**HMNG 4004 Intermediate Hmong**

3 credit(s); prereq 4003, grad student; Credit will not be granted if credit has been received for: HMNG 3022;

**Instructor:** Vang, Bee

**Description:** This course is designed for students who have already taken the Beginning Hmong courses. It is expected that the student understand all materials before coming to class to fully participate in the session. The main objectives of this course are to 1) reinforce basic reading, writing, and speaking using the Hmong Romanized Phonetic Alphabets (RPA); 2) to strengthen/enhance the students’ ability to communicate and negotiate meanings in basic White Hmong at the inter-personal level in the classroom and/or school settings; and, 3) to increase students’ vocabulary through selected topics. The course will be taught utilizing lectures, practice or pronunciation, basic dialogues, group discussions, and class exercises. Upon completion of this course, it is expected that students will: 1. Understand sentence length utterances on a variety of topics during face to face or short telephone conversations. 2. Be able to handle successfully a variety of uncomplicated, basic, and communicative task in social situations. 3. Be able to read consistently with increase understanding simple connected texts dealing with variety of basic and social needs. 4. Be able to meet a number of practical needs through the writing of short simple letters. 5. Be able to indentify key elements of Hmong culture and history including family structure, clans, religion, customs, and folktales. 6. Increase their understanding on the usage of Hmong grammatical rules.

**Style:** 60% Lecture, 5% Film/Video, 20% Discussion, 10% Small Group Activities, 5% Student Presentation.

**Grading:** 25% mid exam, 25% final exam, 10% special projects, 10% quizzes, 15% written homework, 15% attendance.
are to 1) reinforce basic reading, writing, and speaking using the Hmong Romanized Phonetic Alphabets (RPA); 2) to strengthen/enhance the students’ ability to communicate and negotiate meanings in basic White Hmong at the inter-personal level in the classroom and/or school settings; and, 3) to increase students’ vocabulary through selected topics. The course will be taught utilizing lectures, practice or pronunciation, basic dialogues, group discussions, and class exercises. Upon completion of this course, it is expected that students will: 1. Understand sentence length utterances on a variety of topics during face to face or short telephone conversations. 2. Be able to handle successfully a variety of uncomplicated, basic, and communicative task in social situations. 3. Be able to read consistently with increase understanding simple connected texts dealing with variety of basic and social needs. 4. Be able to meet a number of practical needs through the writing of short simple letters. 5. Be able to indentify key elements of Hmong culture and history including family structure, clans, religion, custody, and folktales. 6. Increase their understanding on the usage of Hmong grammatical rules.

**Style:** 50% Lecture, 30% Discussion. Class Activities and Research

**Exam Format:** All

**HMNG 4006 Accelerated Intermediate Hmong**

3 credit(s); prereq 4005, ability in basic spoken Hmong, grad student; Credit will not be granted if credit has been received for: HMNG 1016;

**Instructor:** Vang,Bee

**Description:** This course is designed for students who have already been exposed to the Hmong alphabets and have the basic skills in reading, writing, and listening. The pace for this course is very fast. One semester of this course is equivalent to two semesters of Intermediate Hmong. It is expected that the students understand all materials before coming to class to fully participate in the session. The main objectives of this course are to 1) reinforce basic reading, writing, listening, and speaking skills using the Hmong Romanized Phonetic Alphabet (RPA); 2) strengthen the students’ ability to communicate and negotiate meanings in basic Hmong at the inter-personal level in the classroom, at home, and/or out in the community; and, 3) to increase students’ vocabulary through selected topics.

Functions of self, family, workplace and community will be covered. The course will be taught utilizing lectures, reading and writing practice, projects, basic dialogues, group discussions, and class exercises.

**Style:** 60% Lecture, 5% Film/Video, 10% Discussion, 20% Small Group Activities. 5% Student Presentation

**Grading:** 20% mid exam, 20% final exam, 20% special projects, 20% quizzes, 10% written homework, 10% attendance.

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**Horticultural Science**

305 Alderman Hall

**HORT 1001 Plant Propagation**

4 credit(s); Meets CLE req of Biological Sciences/Lab Core;

**Instructor:** Gillman,Jeffrey Hays

**Description:** This course will cover basic methods of plant propagation including both asexual and sexual means. The fundamentals of plant anatomy, morphology, and physiology will also be covered.

**Style:** 50% Lecture, 10% Discussion, 40% Laboratory

**Grading:** 40% mid exam, 15% final exam, 45% laboratory evaluation.

**Exam Format:** short answer and multiple choice

**HORT 1003 Master Gardener Core Course: Horticulture for Home & Garden**

3 credit(s);

**Instructor:** Weisenhorn,Julie Edith

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

**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:** Gardner,Gary M

**Description:** Upon completion of this course, each student will understand and have knowledge of the following concepts: the process of fermentation and its role in wine production; fundamental principles of biology and culture of the grapevine; types of wine and their production differences; the major grape-growing regions of the world, the most important grape cultivars in each region, and the characteristics of wines produced in these regions; systematic evaluation of wine sensory characteristics; understanding commercial wine labels; the basic aspects of plant anatomy, using the grapevine as a model; the major genetic factors in grapes that contribute to wine quality; how cultural and environmental factors affect wine quality and yield; selection, planting, and cultivation of grapevines in a home garden; current issues involving wine and human health; and current social and legal issues involving wine. In addition to lectures, discussion groups, and sensory evaluation (tasting) sessions, the course will include one scheduled Saturday field trip to the Horticultural Research Center (part of the Minnesota Landscape Arboretum in Chanhassen) to visit the vineyards and our research winery.
HORT 3002W Greenhouse Management  
A-F only, 3 credit(s); prereq 1001 or instr consent; Meets CLE req of Writing Intensive; 
Instructor: Anderson, Neil O.  
Description: Commercial greenhouses are specialized growing structures that allow for implementing environmental control during crop production. Even if you are not pursuing a career in greenhouse production, your knowledge of growing commercial crops in controlled environments will be useful for all horticulture careers. Greenhouses are common structures at retail nursery & garden centers, golf courses, and in commercial / residential landscapes. Greenhouse-grown products are used in virtually every discipline of horticultural science! The objectives of this course are to acquaint you with the identification and use of greenhouse structures and equipment, cropping systems and management, basic cultural requirements of greenhouse crops, managing the people and crops in a greenhouse operation, and conducting experiments to understand current problems. Through the use of interactive learning, individualized field trips, guest lectures, intensive writing assignments, and in-class discussions you will learn the environmental factors manipulated within a greenhouse and how greenhouses are designed to control these factors. The course is designed for undergraduates, both majors and non-majors, and fulfills one Writing Intensive requirement within the Environmental Horticulture curriculum. Upon completion of this course, you should have command of the following concepts: - Identification of greenhouse structural components. - Knowledge of the best types of glazing materials for each crop. - Application of the principles of greenhouse site selection and construction. - Evaluation of strengths/weaknesses of greenhouse types for specific crop production requirements. - Design the specifications for greenhouse heating, cooling, and air movement systems. - Manage the daily operations of crop production in the greenhouse environment, including irrigation, fertilization, irradiance, photoperiod, temperature control, substrate selection, disease control, plant growth regulation. - Proper management of crops in the greenhouse environment. - Writing comprehensive proposals for a greenhouse business. - Maintain a functional laboratory notebook. - Knowledgeable conduct of scientific experiments, including hypothesis testing, experimental design, collection / analysis of data, reading and understanding primary scientific literature, and writing functional and professional laboratory papers. - Teamwork necessary to accomplish tasks with colleagues from varying horticultural backgrounds, training, and experience.

HORT 3005 Environmental Effects on Horticultural Crops  
A-F only, 4 credit(s); prereq 1001, BIOL 1009, soph; 
Instructor: Markhart III, Albert Henry  
Description: Student may contact the instructor or department for information.

HORT 3131 Student Organic Farm Planning, Growing, and Marketing  
A-F only, 3 credit(s); prereq 1001 or AGRO 1101 or AGRO 1103 or BIOL 1001 or BIOL 1009 or instr consent; Credit will not be granted if credit has been received for: AGRO 3131; 
Instructor: Porter, Paul M  
Description: Student may contact the instructor or department for information.

HORT 4000 International Experiences in Horticultural Science  
3 credit(s), max credits 6; prereq 1001 or instr consent; Meets CLE req of International Perspect Theme; 
Instructor: Markhart III, Albert Henry  
Description: Student may contact the instructor or department for information.

HORT 4000H International Experiences in Horticultural Science: Honors  
A-F only, 3 credit(s), max credits 6; prereq [1001 or instr consent], honors student; Meets CLE req of International Perspect Theme; 
Instructor: Markhart III, Albert Henry  
Description: Student may contact the instructor or department for information.

HORT 4015 Advanced Woody and Herbaceous Plant Topics: Spring Flowering Bulbs  
A-F only, 1 credit(s), max credits 7, 7 repeats allowed; 
Instructor: Anderson, Neil O.  
Description: Student may contact the instructor or department for information.

HORT 4021 Landscape Design and Implementation I  
A-F only, 4 credit(s); prereq [1001, 1015] or instr consent; 
Instructor: Calkins, PhD, James Bruce  
Description: This course is designed for environmental horticulture majors with specializations in landscape design, landscape maintenance, turf, and nursery production as well as students enrolled in individualized programs, Master of Agriculture in Horticulture students, and CCE students. Students enrolled in landscape architecture, urban and community forestry, and environmental studies should also find it an excellent elective. Course content is based on a philosophy of sustainable landscape theory and practice and the design of landscapes that are functional, maintainable, environmentally sound, cost effective, and aesthetically pleasing. This approach stresses sustainability as it relates to all phases of landscape development which includes design, implementation, and management. Students actively participate in a lecture format that also includes discussion, presentation, and case study. Laboratories utilize the Department of Horticultural Science Display and Trail Garden and Landscape Design Studio, the St. Paul and Minneapolis campus grounds, and commercial and residential sites. Students learn about all aspects of the design process including needs assessment, site survey and analysis, concept plan development, plant selection, and the development of draft and completed designs. Presentation techniques including lettering, graphics, and plan layout are also covered as are landscape plan take-offs and and the basics of bidding. Students apply these concepts through the development of design solutions for a variety of residential and commercial sites.

HORT 4023 Landscape Design and Implementation II  
A-F only, 4 credit(s); prereq 4021; 
Instructor: Calkins, PhD, James Bruce  
Description: Student may contact the instructor or department for information.

HORT 4023 Landscape Design and Implementation II  
A-F only, 4 credit(s); prereq 4021; 
Instructor: Calkins, PhD, James Bruce  
Description: Student may contact the instructor or department for information.

HORT 4063 Turfgrass Science  
A-F only, 3 credit(s); prereq 4061; 
Instructor: Watkins, Eric  
Description: This course will focus on turfgrass physiology and how it relates to management practices. Students will learn how to apply turfgrass science principles and techniques to real-world situations. The course is designed for students who are preparing for careers in turfgrass science or related fields. The course will consist of lecture, discussion, and lab. Topics covered include, but are not limited to: heat/cold tolerance, drought tolerance, shade adaptation, plant growth regulation, wear tolerance, and fertility.

Style: 30% Lecture, 15% Discussion, 15% Laboratory, 15% Small Group Activities, 5% Student Presentation, 5% Guest Speakers, 10% Web Based, 5% Service Learning.

Grading: 15% mid exam, 15% final exam, 10% reports/papers,
HORT 4063 Turfgrass Science
A-F only, 3 credit(s); prereq 4061;
Instructor: Watkins, Eric
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 4401 Plant Genetics and Breeding
4 credit(s); prereq Biol 1009 or equiv or grad, instr consent;
Credit will not be granted if credit has been received for:
AGRO 4401;
Instructor: Thill, Christian A
Description: Student may contact the instructor or department for information.

HORT 5009 Pesticides in Horticulture: Their Use and Abuse
A-F only, 3 credit(s); prereq [ENT 4015 or ENT 4251], PIPA 2001 or instr consent;
Instructor: Herzfeld, Dean
Description: This course covers the basics of pesticide use in horticulture. Major pesticide groups will be covered including herbicides, insecticides, fungicides and others. Mode of action, environmental fate, toxicity, and other pertinent information will be covered for various compounds. Pesticide application and safety will also be covered. Ethical use of pesticides will be investigated and discussed in depth.

HORT 5023 Public Garden Management
2 credit(s);
Instructor: Olin, Peter Joel
Description: With the growth in public gardens, from city, county, and state gardens to private gardens donated to public service there is, and will continue to be, a demand for people skilled in the management of public gardens. Investigation into all areas of operations and management will provide an overview of the knowledge and skills necessary for an individual looking toward a career in public garden management.
Style: 30% Lecture, 30% Discussion. Site visits.
Grading: 40% reports/papers, 20% class participation, 40% other evaluation. Attendance

HORT 5032 Sustainable Commercial Vegetable Production Systems
A-F only, 3 credit(s); prereq [3005, ENT 3005, PLPA 2001, SOIL 2125] or instr consent;
Instructor: Thill, Christian A
Description: Sustainable commercial vegetable production systems meet one evening weekday, and two Saturdays: 8:00am to 5:00pm for arranged field trips. Additionally, a 2-day professional conference on fruit and vegetables is part of the curriculum. This course is designed to familiarize you with the systems of commercial vegetable production, and improvements upon these components through research. Instruction will be concentrated on systems that represent pillars of commercial vegetable production, whereby principles of their use cross the boundaries of individual cropping systems. The systems involved are neither static nor independent, rather, quite dynamic in their relationships. Thus, students should consider this as they progress through the various areas of study. Systems include: site selection, land preparation and environmental interaction, specialized equipment, seed selection to preparation and stand establishment, cultural management practices during crop growth and development, water management, control of insects, diseases, and weeds, post harvest handling, and marketing and commodity use. The instructor will incorporate case study examples to almost every topical area covered and have guest lecturers. These activities should better prepare students for out-of-class work situations and add diversity to the learning experience.
Style: 60% Lecture, 30% Discussion. Field trips, hands on exercises.
Grading: 20% mid exam, 20% final exam, 20% special projects, 10% in-class presentation, 30% problem solving.
Exam Format: Essay

HORT 5051 Floriculture Crop Production
A-F only, 4 credit(s); prereq 1001, 1015, 3002;
Instructor: Anderson, Neil O.
Description: The purpose of this course is to acquaint students with the identification and basic cultural requirements of commercially produced bedding plants, gain experience in growing them, and conduct experiments to understand current production problems. Plant physiology and breeding are integrated with commercial growing practices to enhance intelligent bedding plant production. The important role of bedding plants in the human environment will be discussed, with special emphasis on future issues. Through the use of interactive learning, field trips, written assignments, workbook questions, and in-class discussions students will learn crop requirements and the interactions between the marketing chain of breeders, producers, distributors, growers, retailers, and consumers. The course is designed for undergraduates (majors and non-majors). Upon completion of this course, each student should have command of the following concepts: - Identification of major and minor potted bedding plant crops, including annuals, biennials, and perennials. - Understand the requirements necessary to maximize axillary (% rooting) and sexual (% seed germination) propagation and yield potential. - Be conversant in the cultural requirements for the effective and timely production of bedding plants. - Understand, manipulate, and anticipate the effects of the five factors of plant growth for quality plant production. - Maintain an organized lab book for collecting data. - Correctly summarize experimental results, communicate these findings verbally and in writing to your colleagues, and develop recommendations. - Recognize quality bedding plants, using industry standards.

HORT 5090 Directed Studies
1-6 credit(s), max credits 18, 18 repeats 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 5131 Student Organic Farm Planning, Growing, and Marketing
3 credit(s); prereq 1001 or AGRO 1101 or AGRO 1103 or BIOL 1001 or BIOL 1009 or instr consent;
Credit will not be granted if credit has been received for: AGRO 3131;
Instructor: Porter, Paul M
Description: Student may contact the instructor or department for information.

HORT 6001 Master of Agriculture Project Planning
S-N only, 1 credit(s); prereq Master of agriculture in horticulture student, instr consent;
Instructor: Calkins PhD, James Bruce
Description: HORT 6001 - M.Ag. Project Planning - is the first of two classes tied to the Master of Agriculture in Horticulture
HORT 6002 Master of Agriculture Project Implementation
S-N only, 2 credit(s); prereq 6001, instr consent;
Instructor: Calkins PhD, James Bruce
Description: HORT 6002 - M.Ag. Project Implementation - is the second of two classes tied to the Master of Agriculture in Horticulture (M.Ag.) Integrating (capstone) Project. Students must get approval from the instructor to register. During the implementation phase, the student works on the project developed and approved during the planning phase (HORT 6001). There are no formal class meetings, but the student is expected to seek guidance from the instructor and their adviser on a regular basis and to keep the instructor and their adviser informed relative to their progress as they complete their project. The class culminates with an approved completed project, as outlined in the project proposal developed and approved during the planning phase, and a public seminar.
Grading: 80% reports/papers, 20% other evaluation. Grading is based on the completed Integrating Project and a public seminar.

HORT 6003 Master of Agriculture in Horticulture Professional Experience Program: Internship
S-N only, 1-3 credit(s); max credits 6; prereq Master of agriculture in horticulture student, instr consent, completed internship contract;
Instructor: Calkins PhD, James Bruce
Description: HORT 6003 - Master of Agriculture Professional Experience Program (PEP) - provides an opportunity for students to further their learning and gain practical experience through a supervised internship experience. Students are also able to further develop their skills and learn new skills during their internship experience. Students must get permission from the instructor to register. Internships may be completed with horticulture firms, government agencies, or other suitable entities. The student selects a willing adviser for the internship experience and then prepares and submits the paperwork that outlines and formalizes the expectations and outcomes for the internship experience as developed and approved through consultation with the student's internship adviser and internship supervisor.
Grading: Grades are assigned by the student's internship adviser. Student reporting during the internship and how the internship experience will be documented and summarized are arranged between the student and the student's internship adviser.

HORT 8280 Current Topics in Applied Plant Sciences
S-N only, 1 credit(s); prereq Grad major in [hort or applied plant sciences or ent or ag 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: Tong, Cindy Bow San
Description: Student may contact the instructor or department for information.

HORT 8280 Current Topics in Applied Plant Sciences
S-N only, 1 credit(s); prereq Grad major in [hort or applied plant sciences or ent or ag or plnt brdg or plnt path or soil] or instr consent;
Instructor: Thill, Christian A
Description: Student may contact the instructor or department for information.

Human Factors
220 Cooke Hall

HUMF 8001 Special Topics: Human Factors/Ergonomics
2-3 credit(s), max credits 3, 1 repeat allowed; prereq Enrollment in good standing, grad HumF minor;
Instructor: Hayes, Caroline Clarke
Description: Student may contact the instructor or department for information.

HUMF 8002 Proseminar in Human Factors/Ergonomics
A-F only, 1 credit(s), max credits 2; prereq Enrollment in good standing, grad HumF minor;
Instructor: Stoffregen, Thomas
Description: Student may contact the instructor or department for information.

Human Resource Development
425 VoTech

HRD 3001 Introduction to Human Resource Development
3 credit(s);
Instructor: Bartlett, Kenneth Russell
Description: Student may contact the instructor or department for information.

HRD 3196 Profession and Practice of Human Resource Development
2 credit(s); prereq HRD undergrad;
Instructor: Anderson, Orkideh Mohajeri
Description: Student may contact the instructor or department for information.

HRD 5196 Internship: Human Resource Development
S-N only, 1-10 credit(s), max credits 10, 1 repeat allowed; prereq 5001, 5201 or 5301;
Instructor: Peterson, Shari L
Description: Student may contact the instructor or department for information.

HRD 5196 Internship: Human Resource Development
S-N only, 1-10 credit(s), max credits 10, 1 repeat allowed; prereq 5001, 5201 or 5301;
Instructor: Anderson, Orkideh Mohajeri
Description: Student may contact the instructor or department for information.

HRD 5202 Training on the Internet
3 credit(s);
Instructor: Stavredes, Tina M
Description: Student may contact the instructor or department for information.

HRD 5410 Survey of Research Methods and Emerging Research in Human Resource Development
This information is accurate as of 6/9/2008 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.
Humanities

HRIR 3042 The Individual and Organizational Performance
2 credit(s);
Instructor: STAFF
Description: Factors influencing group, team, and organizational performance. Examines systems that drive organizational success. Topics include job design and organization structure, organization effectiveness measures, culture, group dynamics, teamwork; power and influence.

HRIR 5025 Comparative and International Human Resources and Industrial Relations
2 credit(s); prereq Grad majors must register A-F; Meets CLE req of International Perspect Theme;
Instructor: STAFF

Humanities

HUM 1002 Humanities in the West II
4 credit(s); Credit will not be granted if credit has been received for: HUM 3002; Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core;
Instructor: Norwood,James
Description: In our study of the humanities in the Middle Ages (c. 500-1400 AD), we have a great set of topics, including the phenomenon of courtly love and chivalry, the origin of the Grail myth, the Crusades, and the Knights Templar. We will study as well such influential figures as St. Augustine, Charlemagne, Eleanor of Aquitaine, Thomas Becket, and Dante. A special focus in the course will be Gothic art and architecture. We will also consider the life of Joan of Arc, the rise of medieval cities, St. Thomas Aquinas, the Magna Carta, and many other influential developments in this great age. IMPORTANT: Class attendance is required and will figure in grading. This is intended as a lively learning experience with the class composed of a wide range of students throughout the university.
Style: 80% Lecture, 10% Film/Video, 10% Discussion. For comments on instructor, see the ratemyprofessors.com website; for specific questions about the course, please feel free to contact me directly at norwo001@umn.edu
Grading: 45% mid exam, 45% final exam, 5% attendance, 5% other evaluation. attendance will be worth at least 5% (with strict penalty structure for missing classes and an incentive for attending all of the classes); there will be many extra credit opportunities offered in this course
Exam Format: Objective and/or essay

HUM 1003 Humanities in the West III
4 credit(s); Credit will not be granted if credit has been received for: HUM 3003; Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core;
Instructor: Brown,James
Description: ATTENTION!!! FANS OF THE DA VINCI CODE!!!! This course focuses on the contributions of the Western tradition in art, literature, history, and ideas during the periods of the Renaissance and Reformation in the fifteenth and sixteenth centuries. One of our course topics will be the phenomenon of THE DA VINCI CODE, the life and art of Leonardo, and how much of Dan Brown's popular novel is based on fact. Readings will include selected works of Machiavelli, Marlowe, Cervantes, Shakespeare, Montaigne, Luther, Erasmus, and More. We will also study the impact of Italian and Northern Christian humanism. Another topic will be Italian Renaissance art with intensive study of Brunelleschi's Dome in Florence. In examining art, literature, history, philosophy, and cultural values, we will seek connections among the various disciplines. Throughout the course we will explore how the tradition of the Western humanities has shaped essential institutions, social roles, and personal values. Slide and video presentations will accompany many of the classes. IMPORTANT: Class attendance is required and will be a component of grading. This is intended as a lively learning experience with the class composed of a wide range of student disciplines and majors.
Style: 80% Lecture, 10% Film/Video, 10% Discussion. For comments on instructor, see the ratemyprofessors.com website; for specific questions about the course, please feel free to contact me directly at norwo001@umn.edu
Grading: 45% mid exam, 45% final exam, 5% attendance, 5% other evaluation. attendance will be worth at least 5% (with strict penalty structure for missing classes and an incentive for attending all of the classes); there will be many extra credit opportunities offered in this course
Exam Format: objective and/or essay

HUM 1005 Humanities in the West V
4 credit(s); Credit will not be granted if credit has been received for: HUM 3005; Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core;
Instructor: Norwood,James
Description: ATTENTION!!! JANE AUSTEN FANS!!! In this course we will be reading Persuasion and discussing the recent film Becoming Jane. In addition to Persuasion, we also have a great lineup of books and topics from the nineteenth century. In the first half of the course, we shall examine themes of society and the Industrial Revolution in our study of John Stuart Mill, Marx, Ibsen, Mary Shelley, and Henry David Thoreau. The second half will focus on the late 19th and early 20th centuries with emphasis on the themes of science and art, as we examine Darwin, Conrad, Chekhov, Nietzsche, Freud, Flaubert, Verne, and Proust. Additionally, we will trace the development of art through the movements of Romanticism, Realism, and Impressionism. Video and slide presentations will accompany many of the classes. IMPORTANT: Class attendance is required and will figure in grading. This is intended as a lively learning experience with the class composed of students from a wide range of
disciplines throughout the university.  
**Style:** 80% Lecture, 10% Film/Video, 10% Discussion. For comments on instructor, see the ratemyprofessors.com website; for specific questions about the course, please feel free to contact me directly at norwo001@umn.edu 
**Grading:** 45% mid exam, 45% final exam, 5% attendance, 5% other evaluation. attendance will be worth at least 5% (with strict penalty structure for missing classes and an incentive for attending all of the classes); there will be many extra credit opportunities offered in this course 
**Exam Format:** Objective and/or essay

**HUM 3002 Humanities in the West II**
4 credit(s); Credit will not be granted if credit has been received for: HUM 1002; Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 
**Instructor:** Norwood, James 
**Description:** 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 1002. In our study of the humanities in the Middle Ages (c. 500-1400 AD), we have a great set of topics, including the phenomenon of courtly love and chivalry, the origin of the Grail myth, the Crusades, and the Knights Templar. We will study as well such influential figures as St. Augustine, Charlemagne, Eleanor of Aquitaine, Thomas Becket, and Dante. A special focus in the course will be on Gothic art and architecture. We will also consider the life of Joan of Arc, the rise of medieval cities, St. Thomas Aquinas, the Magna Carta, and many other influential developments in this great age. IMPORTANT: Class attendance is required and will figure in grading. This is intended as a lively learning experience with the class composed of a wide range of students throughout the university.  
**Style:** 80% Lecture, 10% Film/Video, 10% Discussion. For comments on instructor, see the ratemyprofessors.com website; for specific questions about the course, please feel free to contact me directly at norwo001@umn.edu 
**Grading:** 30% mid exam, 30% final exam, 30% reports/papers, 5% attendance, 5% other evaluation. 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:** Objective and/or essay

**HUM 3003 Humanities in the West III**
4 credit(s); Credit will not be granted if credit has been received for: HUM 1003; Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 
**Instructor:** Norwood, James 
**Description:** 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 1003. This course focuses on the contributions of the Western tradition in art, literature, history, and ideas during the periods of the Renaissance and Reformation in the fifteenth and sixteenth centuries. One of our course topics will be the phenomenon of THE DA VINCI CODE, the life and art of Leonardo, and how much of Dan Brown’s popular novel is based on fact. Readings will include selections from the works of Machiavelli, Marlowe, Cervantes, Shakespeare, Montaigne, Luther, Erasmus, and More. We will also study the impact of Italian and Northern Christian humanism. Another topic will be Italian Renaissance art with an intensive study of Brunelleschi’s Dome in Florence. In examining art, literature, history, philosophy, and cultural values, we will seek connections among the various disciplines. Throughout the course we will explore how the tradition of the Western humanities has shaped essential institutions, social roles, and personal values. Slide and video presentations will accompany many of the classes. IMPORTANT: Class attendance is required and will be a component of grading. This is intended as a lively learning experience with the class composed of a wide range of student disciplines and majors.  
**Style:** 80% Lecture, 10% Film/Video, 10% Discussion. For comments on instructor, see the ratemyprofessors.com website; for specific questions about the course, please feel free to contact me directly at norwo001@umn.edu 
**Grading:** 30% mid exam, 30% final exam, 30% reports/papers, 5% attendance, 5% other evaluation. 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:** Objective and/or essay

**HUM 3910 Topics in the Humanities: Masses, Elites - Leaders, Followers**
3 credit(s), max credits 4, 1 repeat allowed;  
**Instructor:** Kliger, George 
**Description:** Student may contact the instructor or department for information.

**HUM 3970 Directed Studies**
1-4 credit(s), max credits 4, 1 repeat allowed; prereq instr consent; 
**Instructor:** 1 STAFF 
**Description:** Student may contact instructor or department for information.

**HUM 4910 Topics in the Humanities**
3 credit(s), max credits 4, 1 repeat allowed;  
**Instructor:** Kliger, George 
**Description:** Student may contact the instructor or department for information.

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**Industrial Engineering**
125 Mechanical Engineering

**IE 3041 Industrial Assignment I**
A-F only, 2 credit(s); prereq ME upper division, registration in ME co-op program;  
**Instructor:** Marple, Virgil A 
**Description:** Student may contact the instructor or department for information.
IE 4043 Industrial Assignment III
A-F only, 4 credit(s); prereq 4042;
Instructor: Marple, Virgil A
Description: Student may contact the instructor or department for information.

IE 4521 Statistics, Quality, and Reliability
4 credit(s); prereq Upper div or grad student or CNR;
Instructor: Arora, Sant R
Description: Student may contact the instructor or department for information.

IE 4521 Statistics, Quality, and Reliability
4 credit(s); prereq Upper div or grad student or CNR;
Instructor: Cooper, William L
Description: Student may contact the instructor or department for information.

IE 5080 Topics in Industrial Engineering
1-3 credit(s), max credits 3, 1 repeat allowed; prereq Upper div or grad student;
Instructor: Rangarajan, Bharath
Description: Student may contact the instructor or department for information.

IE 5113 Systems Engineering II
A-F only, 4 credit(s); prereq 5111, a course on basic probability, [IT upper div or grad student];
Instructor: Monson, Robert James
Description: 

IE 5513 Engineering Safety
A-F only, 4 credit(s); prereq Upper div IT or grad student;
Instructor: Chaplin, Jonathan
Description: Occupational, health, and product safety. Standards, laws, and regulations. Hazards and their engineering control, including general principles, tools and machines, mechanics and structures, electrical safety, materials handling, fire safety, and chemicals. Human behavior and safety, procedures and training, warnings and instructions.
Style: 100% Lecture.
Grading: 22% mid exam, 31% final exam, 5% reports/papers, 10% quizzes, 22% written homework, 10% class participation.

IE 5522 Quality Engineering and Reliability
4 credit(s); prereq [4521 or equiv]. [upper div or grad student or CNR];
Instructor: STAFF
Description: The course focuses on building quality through product and process design and seeking continuous improvements by identifying weakness bottlenecks, wastes, etc and using concepts such as Robust Design Quality Function Deployment (QED), Failure Mode Effect Analysis (FMEA), Fault trees, event trees, goal trees, Design Review, value analysis, principles of integration, cause effect analysis, reengineering benchmarking, etc. A lot of stress is given on sampling tolerance engineering statistical process control. Control charts variable attribute, process capability indices etc are thoroughly covered. Modeling for improvement of system reliability, availability and maintainability is also covered. The course also stresses on Organizational issues, such as Total Quality Management (TQM), employee empowerment, team work, Performance measurement ISO 9000 series certification, Malcolm Baldrige Award.
Style: 80% Lecture, 20% Discussion.
Grading: 20% mid exam, 40% final exam, 30% special projects, 10% problem solving.
Exam Format: problems

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 5541 Project Management
4 credit(s); prereq Upper div or grad student;
Instructor: Monson, Robert James
Description: 

IE 5541 Project Management
4 credit(s); prereq Upper div or grad student;
Instructor: Fiedler, Corrine Marie
Description: 

IE 5545 Decision Analysis
4 credit(s); prereq 4521 or equiv;
Instructor: Gupta, Diwakar
Description: This course surveys normative theories of decision making, with a particular emphasis on structuring of hard decision problems arising in a variety of engineering, business, and public policy contexts. Topics discussed include decision trees, expected utility theory, screening prospects by dominance, assessment of subjective probability, multiple attribute utility, analytic hierarchy process, value of information, multistage decision problems, benchmarking with data envelopment analysis, and basics of game theory. The course is structured around the following themes: 1. What makes decision problems hard? Structuring of decision problems via decision trees. 2. Shortcomings of some commonly used decision criterion. 3. Value functions and utility functions. Expected utility maximization principle. 4. Risk attitudes, assessing utility functions and subjective probabilities. 5. Screening prospects by dominance. Portfolio selection. 6. Multiple attribute utility theory. 7. Analytical Hierarchy Process: Introduction, strengths and shortcomings. 8. Data Envelopment Analysis. Applications of DEA. 9. Introduction to game theory: Zero sum games. Cooperative and competitive games. Nash equilibrium. Stackelberg equilibrium. 10. Examples and cases from public policy and business sectors of economy. This course will be web enhanced but the URL is not yet available.
Style: 50% Lecture, 20% Discussion. Discussion of assigned cases
Grading: 25% mid exam, 35% final exam, 10% reports/papers, 10% in-class presentation, 20% problem solving. Depending on student needs, the final exam may be replaced by a project.
Exam Format: Questions that must be answered in detail.

IE 5551 Production Planning and Inventory Control
4 credit(s); prereq CNR or upper div or grad student;
Instructor: Benjaafar, Saif
Description: Student may contact the instructor or department for information.

IE 5553 Simulation
4 credit(s); prereq Upper div or grad student; familiarity with probability/statistics recommended;
Instructor: England, Darin Allen
Description: Student may contact the instructor or department for information.

IE 8534 Advanced Topics in Operations Research
1-4 credit(s), max credits 8; prereq 5531, 8532;
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: Davidson, Jane H
Description: Student may contact the instructor or department for information.

IE 8774 Graduate Seminar
S-N only, 1 credit(s); prereq 8773;
Instructor: Davidson, Jane H
Description: Student may contact the instructor or department for information.

IE 8794 Industrial Engineering Research
1-6 credit(s), max credits 10, 10 repeats allowed; prereq instr
IE 8953 Plan B  
A-F only, 2 credit(s); prereq 8951;  
Instructor: Kortshagen, Uwe Richard  
Description: Student may contact the instructor or department for information.

Information Networking  
101 Wesbrook Hall

INET 4021 Network Programming  
A-F only, 4 credit(s); prereq [CSCI 4211 or equiv professional experience or instr consent], 45 cr;  
Instructor: STAFF  
Description: Network and distributed programming concepts and design using C, Java, and other higher level programming languages. Topics include sockets, TCP/IP, RPC, streaming, CORBA, .NET, and SOAP. Labs use UNIX/Linux and MS Windows operating systems. (NOTE: Students must have completed 45 semester credits.)

INET 4031 Systems Administration  
A-F only, 4 credit(s); prereq [CSCI 4061 or instr consent], 45 cr;  
Instructor: STAFF  
Description: Server and data storage architecture, SCSI, Fibre Channel, RAID and striping; configuring hardware and software for server and data storage farms; operational factors, including backup and recovery. Lab. (NOTE: Students must have completed 45 semester credits.)

INET 4032 Storage Design and Administration  
A-F only, 2 credit(s); prereq [Computer with 12 GB of free hard drive space or external storage], [memory/processor capacity to run Linux from CD or virtual environment];  
Instructor: Hertel, Christopher Ross  
Description: Data is one of the most valuable commodities of the 21st century. Examine data storage technology development and management: local, network, and distributed storage; storage history; data protection policy and implementation including: redundancy, replication, backup, archive; security; compression and encryption; emerging technologies.

INET 4051 IT Infrastructure Operations  
A-F only, 3 credit(s); prereq [CSCI 4211 or instr consent], 3 cr;  
Instructor: Victoria, Douglas D  
Description: Network, server and database operations including: infrastructure architecture, organizational structure, security, metrics, vendor relations, outsourcing, capacity planning, strategic planning and budgeting. Online, case study.

INET 4082 IT Infrastructure Projects and Processes  
A-F only, 2 credit(s); prereq 45 cr;  
Instructor: Spllett, Katherine Anna  
Description: IT management overview of business partnerships, project management and lifecycles, methodologies, processes and organizational structures. Technology management, resource estimating, cost, quality, metrics and architecture concepts. Emphasis on best practices. Project assignment in student-selected IT infrastructure area of interest.

INE 4193 Directed Study  
A-F only, 1-4 credit(s), max credits 12, 4 repeats allowed;  
prereq ITI student, dept consent;  
Instructor: STAFF  
Description: Independent project, topic arranged with and supervised by ITI faculty.

Infrastructure Systems Engineering  
510 WBOB

ISE 5104 Construction Estimating  
A-F only, 2 credit(s); prereq ISE grad student;  
Instructor: Hilger, Peter  
Description: Student may contact the instructor or department for information.

ISE 5112 Infrastructure Systems Engineering Management  
A-F only, 2 credit(s); prereq ISE grad student;  
Instructor: Kern, Philip M  
Description: Student may contact the instructor or department for information.

ISE 5201 Pavement Management Maintenance and Rehabilitation  
A-F only, 2 credit(s); prereq ISE grad student;  
Instructor: Damiani, Damian  
Description: Student may contact the instructor or department for information.

ISE 5202 Traffic Engineering Management  
A-F only, 2 credit(s); prereq ISE student;  
Instructor: Damiani, Damian  
Description: Student may contact the instructor or department for information.

ISE 5301 Bridge Management Maintenance and Rehabilitation  
A-F only, 2 credit(s); prereq ISE grad student;  
Instructor: Olson, Steven Arthur  
Description: Student may contact the instructor or department for information.

ISE 5302 Critical Infrastructure Security and Protection  
A-F only, 2 credit(s); prereq ISE grad student or instr consent;  
Instructor: Amin, Massoud  
Description: Student may contact the instructor or department for information.

ISE 5402 Storm Water Management  
A-F only, 2 credit(s), max credits 10, 1 repeat allowed;  
prereq ISE grad student;  
Instructor: Willenbring, Peter Rich  
Description: Student may contact the instructor or department for information.

ISE 5501 Geographic Information Systems  
A-F only, 2 credit(s); prereq ISE student;  
Instructor: Henry, Bradford  
Description: Student may contact the instructor or department for information.

ISE 8105 Capstone Project  
A-F only, 1-2 credit(s), max credits 3; prereq ISE student;  
Instructor: Voller, Vaughan Richard  
Description: Student may contact the instructor or department for information.

Innovation Studies  
170 WesH

IS 5002 Final Project for Innovation Studies  
A-F only, 1-4 credit(s), max credits 4, 4 repeats allowed;  
prereq Completion of IS requirements, dept consent;  
Instructor: Harkins, Arthur M  
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. This information is accurate as of 6/9/2008 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 2008

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**IOFT 1 Fundamentals of Engineering Review (E.I.T. Refresher)**

**Location:** 106 Lind Hall

**Instructor:** Crosby, Barbara C

**Description:** Change is often built into definitions of leadership, and certainly lots of scholars and practitioners have written about how leaders can foster change in their organizations or communities. As the United States and other countries move more fully into the innovation economy, understanding the links between leadership and change take on increased urgency. Leaders will need conceptual tools and practical skills to promote innovative organizations that thrive in an innovative society. Accordingly, this seminar will examine models of change and models of leadership and investigate how leaders can promote personal, organizational, and societal change. Case studies and action research will be emphasized. An important class product will be a framework for leadership and change in an innovation society. At the end of each class session, two or three learners will be responsible for summarizing and synthesizing the evening’s conversation in order to add to the framework.

**Individual Learner Outcomes:**
1. Able to define and analyze leadership from several perspectives
2. Able to identify and explain personal-level models of change
3. Able to identify and explain organizational-level models of change
4. Able to identify and explain societal-level models of change

**Grading:**
35% reports/papers, 25% reflection paper, 30% class participation, 10% other evaluation.

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**IS 5100 Innovation Studies Seminar: Leadership and Change**

**Location:** 106 Lind Hall

**Instructor:** Harkins, Arthur M

**Description:**

Leaders will need conceptual tools and practical skills to promote innovative organizations that thrive in an innovation society. Accordingly, this seminar will examine models of change and models of leadership and investigate how leaders can promote personal, organizational, and societal change. Case studies and action research will be emphasized. An important class product will be a framework for leadership and change in an innovation society. At the end of each class session, two or three learners will be responsible for summarizing and synthesizing the evening’s conversation in order to add to the framework.

**Individual Learner Outcomes:**
1. Able to define and analyze leadership from several perspectives
2. Able to identify and explain personal-level models of change
3. Able to identify and explain organizational-level models of change
4. Able to identify and explain societal-level models of change

**Grading:**
35% reports/papers, 25% reflection paper, 30% class participation, 10% other evaluation.

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**Insurance and Risk Management**

**3-300 Carlson School of Management**

**INS 4100 Corporate Risk Management**

**Location:** 106 Lind Hall

**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.

**Grading:**
50% quizzes, 30% in-class presentation, 20% class participation.

**Exam Format:** multiple choice and short essays

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**INS 4200 Insurance Theory and Practice**

**Location:** 106 Lind Hall

**Instructor:** STAFF

**Description:** Risk theory is applied to practices in liability, property, and workers compensation insurance. Insurance marketing, pricing, underwriting, and claims administration, with adverse selection and moral hazard effects. Public policy issues of tort versus no-fault compensation systems. Self-insurance and
multidisciplinary lens as we read authors from an array of disciplines. We will begin by discussing ancient and modern myth in relation to nature and how myth and storytelling relate to the creation of identity and meaning in our lives. We will then consider some perceptions of nature since the 18th century and these will be organized topically. This course is designed to help you re-acclimate to a university environment and to select a program of study in the Inter-College Program. Although we will be focusing on the University environment and to select a program of study in the university environment and to select a program of study in the University. This theme of identity and place will inhabit and reflect on place through a multidisciplinary lens as we learn to view thoughts about personal identity and how writers inhabit and reflect on place through a multidisciplinary lens as we read authors from an array of disciplines. We will begin by discussing ancient and modern myth in relation to nature and how myth and storytelling relate to the creation of identity and meaning in our lives. We will then consider some perceptions of nature since the 18th century and these will be organized topically. This course is designed to help you re-acclimate to a university environment and to select a program of study in the Inter-College Program. Although we will be focusing on the environment, your writings will be self-reflective and will allow you to do some self-exploration and to develop your investigative and evaluative abilities as you consider your future at the University.

ICP 3093 Directed Study
1-15 credit(s), max credits 15, 1 repeat allowed; prereq instr consent;
Instructor: STAFF
Description: 

Interdepartmental Study
135 Johnston Hall

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 $20 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: Hanson, Matthew R
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 $20 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: Timmins, Paul
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 $20 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 $20 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: Untiedt PhD,L.P,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: Hruska,Elizabeth Suzanne
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: Holshbach,Jesse D
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 3205 Law School Exploration
2 credit(s);
Instructor: Whitney,Angela Schmidt
Description: Thinking about law school? This course will include information about law school, the legal profession, and which careers and specialties are available within the field of law. You’ll also learn what you can do to help get accepted into law school. This course is designed primarily for sophomores and juniors.

ID 3551 Metro Internship Seminar: Corporate and Non-Profit Social Responsibility and Ethical Leadership
A-F only, 6 credit(s); prereq instr consent ;
Instructor: Sandberg,Emma
Description: Student may contact the instructor or department for information.

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 activity 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 activity 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 basic 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 FraserH, 626-2044; Instructor: Holliday,David Wallace
Description: In the Metro Urban Studies Term students activity 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 basic 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 3581 City Arts: Creating Social Change - Art and Culture in Political, Social, Historical Context
4 credit(s); prereq Concurrent registration is required (or allowed) in 3582, 3583, dept consent ;
Instructor: Holliday,David Wallace
Description: In this semester-long program that takes place off-campus in the Twin Cities, the arts are embraced as essential tools for civic engagement, participatory democracy and social justice. Through classroom seminars, field visits and professional internships, students explore how art and culture impact communities and how creative work (i.e. performance, writing, visual art, music and interpretation) can address and illuminate pressing issues. Social and cultural identity, democracy and power structures are just some of the issues students grapple with through the lens of art, culture and social change. In the learning process, students meet with a wide variety of local artists, educators and arts advocates in addition to attending performances, films and installations. Concurrent registration in ID 3582 and ID 3583 is required. Contact the Career and Community Learning Center (612-626-2044) for more information.

This information is accurate as of 6/9/2008 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.
ID 3583 HECUA Off-Campus Program: City Arts Internship Seminar
8 credit(s); prereq concurrent enrollment 3581, 3582, dept consent; contact CCLC, 345 FraserH, 626-2044;
Instructor: Holliday, David Wallace
Description: In this semester-long program that takes place off-campus in the Twin Cities, the arts are embraced as essential tools for civic engagement, participatory democracy and social justice. Through classroom seminars, field visits and professional internships, students explore how art and culture impact communities and how creative work (i.e. performance, writing, visual art, music and interpretation) can address and illuminate pressing issues. Social and cultural identity, democracy and power structures are just some of the issues students grapple with through the lens of art, culture and social change. In the learning process, students meet with a wide variety of local artists, educators and arts advocates in addition to attending performances, films and installations. Concurrent registration in ID 3582 and ID 3583 is required. Contact the Career and Community Learning Center (612-626-2044) for more information.

ID 3591 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 3593, Concurrent registration is required (or allowed) in 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 CCLC (612-626-2044) for more information.

ID 3592 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 3593, Concurrent registration is required (or allowed) in 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 CCLC (612-626-2044) for more information.

ID 3593 HECUA Off-Campus Study Program in Sustainability: Field Methods Research and Investigation
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 CCLC (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! 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, & 3593 is required. Contact the CCLC (612-626-2044) for more information.

ID 3993 Directed Study
1-4 credit(s), max credits 8, 8 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: Spruth, Steve
Description: Student may contact the instructor or department for information.

ID 3993 Directed Study
1-4 credit(s), max credits 8, 8 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: Timmins, Paul
Description: Student may contact the instructor or department for information.

ID 3993 Directed Study
1-4 credit(s), max credits 8, 8 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: Hirt, Laurel Elizabeth
Description: Student may contact the instructor or department for information.

International Business
4-300 Carlson School of Management

IBUS 3010 International Business Topics
A-F only, 3-4 credit(s), max credits 12, 3 repeats allowed; prereq Consent of Carlson International Programs;
Instructor: Spruth, Steve
Description: Student may contact the instructor or department for information.

IBUS 4020 International Business Topics
A-F only, 3-4 credit(s), max credits 12, 3 repeats allowed; prereq Consent of Carlson International Programs;
Instructor: Seltzer, Jon
Description: Student may contact the instructor or department for information.

Interpersonal Relationships Research
104 Child Development

IREL 8021 Seminar: Statistical and Methodological Issues in Research on Dyadic Relationships
S-N only, 2 credit(s); prereq Grad IRel minor, instr consent;
Instructor: Simpson, Jeffrey A
Description: Student may contact the instructor or department for information.

IREL 8360 Seminar: Topics in Interpersonal Relationships

This information is accurate as of 6/9/2008 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.
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); 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 one and a half years 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, various presentations

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 equivalent of one and a half years of university level Italian instruction before taking this course.) Having learned all the basic grammar concepts students now concentrate on mastering these elements and on increasing their active vocabularies. They continue to read, write, speak and listen to Italian. Each student chooses a topic for a cultural presentation, which is both written and spoken. Italian films are integrated into the program. At the end of the fourth semester, students who pass with a grade of "C-" or higher are ready to move on to Italian 3015 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, various presentations

ITAL 3201 Reading Italian Texts: Poetics, Rhetoric, Theory
3 credit(s), max credits 9, 3 repeats allowed; prereq 3015; Credit will not be granted if credit has been received for: ITAL 5201;
Instructor: Ovan,Sabrina
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: Barbieri,Monica
Description: Student may contact the instructor or department for information.

ITAL 4003 Intermediate Italian
2 credit(s); prereq Grad student or instr consent ; Credit will not be granted if credit has been received for: ITAL 1003;
Instructor: Barbieri,Monica
Description: Student may contact the instructor or department for information.

ITAL 4970 Directed Readings
1-4 credit(s), max credits 16, 4 repeats 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 5970 Directed Readings
1-4 credit(s), max credits 16, 4 repeats 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.

Research
1-3 credit(s), max credits 6, 3 repeats allowed; prereq Grad IRel minor or instr consent;
Instructor: Simpson,Jeffry A
Description: Student may contact the instructor or department for information.
Japanese
453 Folwell Hall

JPN 1012 Beginning Japanese
6 credit(s); prereq 1011; Credit will not be granted if credit has been received for: JPN 4002;
Instructor: Tazawa, Kenichi
Description: Student may contact the instructor or department for information.

JPN 3022 Intermediate Japanese
5 credit(s); prereq 3021 or instr consent; Credit will not be granted if credit has been received for: JPN 4004;
Instructor: Emmett, Keiko
Description: Student may contact the instructor or department for information.

JPN 3993 Directed Studies
1-3 credit(s), max credits 12, 4 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: Anderson, Mark
Description: Student may contact the instructor or department for information.

JPN 4002 Beginning Japanese
3 credit(s); prereq 4001, grad student; Credit will not be granted if credit has been received for: JPN 1012;
Instructor: Tazawa, Kenichi
Description: Student may contact the instructor or department for information.

JPN 4004 Intermediate Japanese
3 credit(s); prereq 4003, grad student; Credit will not be granted if credit has been received for: JPN 3022;
Instructor: Emmett, Keiko
Description: Student may contact the instructor or department for information.

JPN 4004 Intermediate Japanese
3 credit(s); prereq 4003, grad student; Credit will not be granted if credit has been received for: JPN 3022;
Instructor: Uchida, Ayumi
Description: Student may contact the instructor or department for information.

JPN 4042 Advanced Japanese Conversation and Composition
4 credit(s); prereq 4041 or instr consent;
Instructor: Fujimoto, Kyoko
Description: Student may contact the instructor or department for information.

JPN 5040 Readings in Japanese Texts
A-F only, 3 credit(s), max credits 9, 3 repeats allowed; prereq 4042 or equiv or instr consent;
Instructor: Molasky, Michael S
Description: Student may contact the instructor or department for information.

JPN 5993 Directed Studies in Japanese
1-15 credit(s), max credits 15, 1 repeat allowed; prereq instr consent, dept consent, college consent;
Instructor: Anderson, Mark
Description: Student may contact the instructor or department for information.

Jewish Studies
245 Nicholson Hall

JWST 3900 Topics: Jewish Studies
A-F only, 3 credit(s), max credits 15, 5 repeats allowed;
Instructor: Staff
Description: Student may contact the instructor or department for information.

JWST 4001W Final Project, Writing Intensive
A-F only, 1 credit(s); prereq 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.

JWST 5900 Topics in Jewish Studies
3-4 credit(s), max credits 8;
Instructor: Lower, Michael T
Description: Student may contact the instructor or department for information.

JWST 5992 Directed Readings
1-12 credit(s), max credits 12, 1 repeat allowed; prereq instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

Journalism and Mass Communication
111 Murphy Hall

JOUR 1001 Introduction to Mass Communication
A-F only, 3 credit(s); prereq Pre-jour or non-jour major;
Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core;
Instructor: Sullivan, Daniel Joseph
Description: Student may contact the instructor or department for information.
JOUR 1001 Introduction to Mass Communication  
A-F only, 3 credit(s); prereq Pre-jour or non-jour major; Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core;  
Instructor: Pedelty,Mark Holmes

Description: This course introduces students to a range of media institutions, cultures, and practices. One question guides our inquiry: How can we use mass media to improve our lives and the lives of others? To answer that question we must become knowledgeable consumers and producers of media. Students will gain knowledge by reading about the histories of various media, studying the results of media research, and investigating their own mediated experiences. Grades will be based on quizzes, concise media analysis writing assignments, and a reporting project. The reporting project, an experiment in citizen journalism?, will be conducted in support of Telling River Stories, a collaboration involving faculty and students from throughout campus.

Style: 25% Film/Video, 25% Discussion, 10% Small Group Activities, 10% Student Presentation, 5% Guest Speakers, 25% Web Based

Grading: 35% reports/papers, 30% special projects, 35% quizzes.

JOUR 1001 Introduction to Mass Communication  
A-F only, 3 credit(s); prereq Pre-jour or non-jour major; Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core;  
Instructor: Stern,Shayla Thiel

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

JOUR 1905 Freshman Seminar  
A-F only, 3 credit(s); prereq freshman;  
Instructor: Southwell,Brian G

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

JOUR 3004W Information for Mass Communication  
A-F only, 3 credit(s); prereq Honors, [jour major or jour minor or approved IDIM major or ICP major or BIS major]; Meets CLE req of Writing Intensive;  
Instructor: Forde PhD,Kathy Roberts

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

JOUR 3004W Information for Mass Communication  
A-F only, 3 credit(s); prereq Jour major or jour minor or approved IDIM major or ICP major or BIS major; 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); prereq Jour major or jour minor or approved IDIM major or ICP major or BIS major; 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 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];  
Instructor: Yzer,Marco

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

JOUR 3006 Visual Communication  
A-F only, 3 credit(s); prereq Jour major or jour minor or design comm premajor or design comm major or graphic design premajor or graphic design major or approved IDIM major or ICP major or BIS major or instr consent ;  
Instructor: Schwartz,Dona

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

JOUR 3101 News Reporting and Writing  
A-F only, 3 credit(s); prereq [3004W or Concurrent registration is required (or allowed) in 3004W or 3004V, [jour major or jour minor or approved IDIM major or ICP major or BIS major], typing skill; Credit will not be granted if credit has been received for: JOUR 3101H;  
Instructor: Ison,Christopher John

Description: This is a writing-intensive course that teaches students the fundamentals of news writing and gets them started learning basic reporting skills. Students will learn how to write basic news stories using Associated Press style. They'll move from writing hard-news leads to short news stories to slightly longer stories. They'll learn how to identify the most important information for a story, organize the information and write descriptively and with clarity. By the end of the semester, they'll be finding some stories on their own, conducting interviews and other research. Class discussion will address news judgment, accuracy, interviewing and source development, ethics, public records law, in-depth reporting skills and other issues.

Style: 25% Lecture, 25% Discussion, 50% Laboratory.

Grading: 25% reports/papers, 25% quizzes, 50% laboratory evaluation.

JOUR 3101 News Reporting and Writing  
A-F only, 3 credit(s); prereq [3004W or Concurrent registration is required (or allowed) in 3004W or 3004V, [jour major or jour minor or approved IDIM 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 need to report and write news. The course emphasizes the ability to recognize news values as well as to write clearly, concisely and 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 investigating, 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
use those tools to write with a clear, informative style. You will be expected to learn and employ proper journalistic forms and style, as well as proper English usage, grammar and spelling. You will also be expected to gather news accurately and comprehensively. This course includes two lecture periods per week, plus a lab to complete assignments related to the lecture. There will also be quizzes and other assignments and writing exercises.

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

**Grading:** 70% reports/papers, 20% quizzes, 10% class participation.

**JOUR 3121 Intermediate News Reporting**

A-F only, 3 credit(s); prereq 3004W or 3004V, 3101; [jour major or approved IDIM major or ICP major or BIS major];

**Instructor:** Isom, Christopher John

**Description:** This is a class tailored to undergraduate journalism majors in the news/editorial sequence. Students will learn how to report on the people, events and institutions that make up the most fundamental news beats in any newspaper. They'll learn by doing - hitting the streets to find news stories at city hall, the police department, the courthouse, etc. They'll need to apply what they learned in Journalism 3101 (Newswriting) and the additional writing skills they learn during the semester in this class. The class will emphasize how to find and use public records for news stories, how to find and interview sources and how to organize information so that stories are interesting and understandable to readers. The instructor will emphasize class discussion to learn about reporting methods, ethics and news judgment. Students will be required to read the newspaper every day and be able to think critically and discuss the news in class. By the end of the semester, students will understand how newsrooms work, and how good reporters produce accurate, high-quality stories for print and broadcast.

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

TV news viewing, guest speakers, in-class exercises, etc.

**Grading:** 100% reports/papers. Occasional quizzes, as well as attendance and class participation could factor in to grades

**JOUR 3173W Magazine Writing**

A-F only, 3 credit(s); prereq 3004W, 3101; [jour major or approved IDIM major or ICP major or BIS major]; IDL sections are open to non-majors; prereq do not apply to IDL sections; Meets CLE req of Writing Intensive;

**Instructor:** Golden, Gayle Celeste

**Description:** This course will teach students the concepts and skills for writing for magazines. Students 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, students will then learn how to market, develop and write the most common types of magazine stories. In the end, students will have some experience pitching a story to a publication, giving them the first step into that marketplace.

**Style:** 50% Lecture, 30% Discussion, 20% Small Group Activities.

**Grading:** 10% special projects, 70% written homework, 20% class participation.

**JOUR 3241 Creative Strategy and Copywriting**

A-F only, 3 credit(s); prereq 3004W, 3201; [jour major or approved IDIM 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, [3159 or 3201 or 3202], [jour major or approved IDIM major or ICP major or BIS major];

**Instructor:** Doyle, Kenneth Owen

**Description:** This section of JOUR 3251 brings together all the standard elements of Strategic Communication Research -- interviews, focus groups, and surveys -- but with heavy emphasis on using them in real-life applications. Roughly the first half of the course will emphasize "book learning," so you have the tools and techniques to go on to the second half. The second half will emphasize applying what you’ve learned, first in a group project, then in an individual project. Both the group project and the individual project will focus on integrating quantitative and qualitative primary and secondary research to discover the psychological consumer and brand insights that form the core of the most powerful advertising and public relations campaigns.

**Style:** 40% Lecture, 10% Discussion.

Doing real-life strategic communication research projects

**Grading:** 25% mid exam. Group Project 25%, Individual Project 50%.

**Exam Format:** Matching, and short essay: define, compare/contrast/etc.

**JOUR 3551 Economics of New Media**

A-F only, 3 credit(s); prereq Non-jour major or [jour major, course appr on prog plan] or [pre-jour, adviser approval];

**Instructor:** Sullivan, Daniel Joseph

**Description:** Many people have great ideas for new ways to use the Internet or other new communications technologies to create value. The problem is figuring out why anyone would pay for these new offerings or invest in them. Solving this problem depends, in large part, on understanding what is new (and unique) about "new media." This course focuses on organizations attempting to use the Internet and related technologies to create new value or to improve the "efficiency" of their existing operations. Particular attention is paid to why companies such as Google and Yahoo are so successful, and why traditional media organizations are struggling to make money on the Internet. Among the topics to be covered are online news, weblogs, searching, e-commerce, ebay, online games, political action organizations, social networking sites and online distribution of music and videos. Format for the class is a mix of lecture and discussion. There are two required books for the course: Re-thinking the Network Economy and The Search: How Google and Its Rivals Rewrote the Rules of Business and Transformed Our Culture. Assignments include a midterm, a final, and 3-4 short writing assignments.

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

**Grading:** 30% mid exam, 30% final exam, 30% reports/papers, 10% class participation.

**Exam Format:** mix of short answer and short essay

**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 Cultural Diversity Theme;

**Instructor:** Squires, Catherine R

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

**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 Citizenship/Publ Ethics Theme;

**Instructor:** Kirtley, Jane E

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

**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:** Sanders, Amy Kristin

**Description:** Student may contact the instructor or department for information.
JOUR 3991 Special Topics in Mass Communication: Context
A-F only, 3 credit(s), max credits 6; prereq Jour major or jour minor or approved IDIM major or ICP major or BIS major;
Instructor: Doyle,Kenneth Owen
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 repeats 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 Owen
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 repeats 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,Daniel Joseph
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 repeats 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 repeats allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Pedelty,Mark Holmes
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 repeats 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 repeats 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 repeats allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Timm,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 repeats 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 repeats 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 repeats allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Chang,Tsan-Kuo
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 repeats allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Leighton,Gordon
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 repeats allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Golden,Gayle Celeste
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 repeats allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Kirtley,Jane E
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 repeats allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Schwitzer,Gary 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 repeats allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Southwell,Brian G
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 repeats allowed; prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Stone,Ken
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 repeats allowed;
prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Kokmen,Leyla Alev
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 repeats 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 repeats allowed;
prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Stamm,Michael R
Description: Student may contact the instructor or department for information.

JOUR 4242 Advertising Portfolio Development
A-F only, 3 credit(s); prereq [3004W or 3004V], 3201, [3241 or 3285],
There are no exams
Grading:
25% Lecture. 75% practicum.
Style:
Weekly meetings with instructors about assignments, readings, projects or discussions with working journalists at area community newspapers and special interest publications.
Students spend a minimum of eight hours weekly on-site at community newspapers and special interest publications.
For possible publication in print or on Internet-based sites.
Students may contact the instructor or department for information.

JOUR 3996 Directed Internship
S-N only, 1 credit(s), max credits 3, 3 repeats allowed;
prereq Jour major, dept consent;
Instructor: Leighton,Gordon
Description: To enroll in this one-term internship program, obtain an Internship Verification Form from the Undergraduate Studies (UGS) office at the SJMC in Murphy Hall. Complete the form and have your internship employer sign it, then return it to the UGS office up to mid-term of the semester (or start of summer semester). Office staff will give you a course packet and information about class meetings. This internship program can be repeated up to three times in different semesters.
Grading: 100% reports/papers.

JOUR 3996 Directed Internship
S-N only, 1 credit(s), max credits 3, 3 repeats allowed;
prereq Jour major, dept consent;
Instructor: Golden,Gayle Celeste
Description: Student may contact the instructor or department for information.

JOUR 3996 Directed Internship
S-N only, 1 credit(s), max credits 3, 3 repeats allowed;
prereq Jour major, dept consent;
Instructor: Leighton,Gordon
Description: To enroll in this one-term internship program, obtain an Internship Verification Form from the Undergraduate Studies (UGS) office at the SJMC in Murphy Hall. Complete the form and have your internship employer sign it, then return it to the UGS office up to mid-term of the semester (or start of summer semester). Office staff will give you a course packet and information about class meetings. This internship program can be repeated up to three times in different semesters.
Grading: 100% reports/papers.

JOUR 4193 Walter H BrovaId and John Cameron Sim
Community Newspaper Practicum
A-F only, 3 credit(s); prereq 3004W, [3101 or 3201], [jour major or approved IDIM or BIS or ICP];
Instructor: Schultz, Lee Ann
Description: Field-based practicum at community newspaper or special interest newspaper in metropolitan area. Students work directly with editors and reporters to produce news and features for possible publication in print or on Internet-based sites. Weekly meetings with instructors about assignments, readings, projects or discussions with working journalists at area community newspapers and special interest publications.
Students spend a minimum of eight hours weekly on-site at assigned publications plus about four hours weekly working on assignments for the publication. Students will work out their own schedule with the assigned newspaper staff. Students should be journalism majors willing to commit time each week to the practicum.
Style: 25% Lecture. 75% practicum.
Grading: 30% mid exam, 40% reports/papers, 30% class participation.
Exam Format: There are no exams.

JOUR 4242 Advertising Portfolio Development
A-F only, 3 credit(s); prereq [3004W or 3004V], 3201, [3241 or 3285],
There are no exams
Grading:
25% Lecture. 75% practicum.
Style:
Weekly meetings with instructors about assignments, readings, projects or discussions with working journalists at area community newspapers and special interest publications.
Students spend a minimum of eight hours weekly on-site at community newspapers and special interest publications.
For possible publication in print or on Internet-based sites.
Students may contact the instructor or department for information.

JOUR 3993 Directed Study
A-F only, 1-3 credit(s), max credits 6, 6 repeats allowed;
prereq [jour major or jour minor or approved IDIM major or ICP major or BIS major], instr consent, dept consent, college consent;
Instructor: Stern, Shayla Thiel
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 non-jour major or [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, 70% Discussion. Student presentations
Grading: 25% mid exam, 25% final exam, 50% reports/papers, 25% special projects.
Exam Format: multiple choice, T/F, short answer

JOUR 4274W Advertising in Society

A-F only, 3 credit(s); prereq Non-jour major or [jour major or approved IM 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 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, 33% reports/papers, 6% special projects, 3% class participation.
Exam Format: multiple choice, short answer, and essay

JOUR 4303 Capstone: Documentary Photojournalism

A-F only, 3 credit(s); prereq [3004W or 3004V], 4302, [jour major or approved IDIM major or ICP major or BIS major] or instructor consent
Instructor: Schwartz, Dona

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

JOUR 4451 Capstone: Advanced Electronic News Writing and Reporting

A-F only, 3 credit(s); prereq [3004W or 3004V], 3101, 3121, 3451, [jour major or approved IDIM major or ICP major or BIS major];
Instructor: Stone, Ken

Description: The emphasis of this course is researching, reporting, shooting, writing and editing TV news packages. Students will learn to use the use of digital cameras and a desktop non-linear system. Students will also learn how to better write to video, how to improve their voice work and on-camera performance. Students will research reports, shoot, write and edit TV news packages and create a resume tape. Students will also contribute reporting, writing, anchoring and other work for University Report. Learning Objectives: Write so that both audio and video are used to their maximum effectiveness. Master the basics of "shooting to edit" such as the correct use of wide shots, medium shots, close-ups and reverses. Use voice more naturally in reading news copy and appear more natural on camera. Practice effective story-telling techniques in taped and live reporting. As much as possible, the class will be run as a newsroom. News meetings will be held, stories assigned and approved, and students will research, shoot, write and edit stories. Students will have the opportunity to contribute to University Report, which is produced by students in JOUR 4452 Each student will produce five package reports. One package must cover an event. One package must be hard news. One package must be a feature. One package will be a quick turnaround. There is one required textbook: It Takes More Than Good Looks by Wayne Freedman.
Style: 10% Lecture, 30% Discussion, 60% Laboratory.
Grading: 85% special projects, 15% quizzes.

JOUR 4452 Capstone: Electronic News Cast Producing

A-F only, 3 credit(s); prereq [3004W or 3004V], 3101, 3121, 3451, [jour major or approved IDIM major or ICP major or BIS major];
Instructor: Stone, Ken

Description: The emphasis in this course is on planning, writing and producing live TV newscasts. Students will produce six University Report newscasts throughout the semester. Much of the class will be spent writing news copy. Students will learn to hone their news and editorial judgment, create a show rundown, write and edit anchor copy, edit b-roll, create graphics, work with a director and studio crew and produce a journalistic sound, visually pleasing newscast with live and taped elements plus accompanying material for the web. Students will collaborate with students in JOUR 4451, using 4451 stories as is or reshaping those stories for the newscast. Students will also generate their own stories as needed. Some students will also anchor. Students will be able to create a resume tape and writing sample packet that can be used to help secure producing jobs in the industry. Learning Objectives: write clear, interest and accurate news copy; edit visually pleasing and editorially fair video and graphics; produce professional standard live television news shows an segments and material for the web; master knowledge of studio equipment capability; demonstrate management and leadership skills in dealing with technical crew members, anchors and reporters under tight deadline pressure.
What Else You Should Know About This Course? Plan to write. And rewrite. And work in teams. That's what producers do.
Style: 10% Lecture, 30% Discussion, 60% Laboratory.
Grading: 10% reports/papers, 50% special projects, 40% laboratory evaluation.

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;
Instructor: Stern, Shayla Thiel
Description: Student may contact the instructor or department for information.

JOUR 4731H Honors: Senior Seminar
A-F only, 1 credit(s); prerequisite jour major, honors;
Instructor: Hansen, Kathleen Ann
Description: Student may contact the instructor or department for information.

JOUR 4801 Global Communication
A-F only, 3 credit(s); prerequisite Non-jour major or jour major, course appr on prog plan or [pre-jour, adviser approval]; Meets CLE req of International Perspect Theme;
Instructor: Chang, Tsan-Kuo
Description: Student may contact the instructor or department for information.

JOUR 4992 Capstone: Field Based Practicum
A-F only, 3 credit(s), max credits 6; prerequisite jour major;
Instructor: Isom, Christopher John
Description: Student may contact the instructor or department for information.

JOUR 4992 Capstone: Field Based Practicum
A-F only, 3 credit(s), max credits 6; prerequisite jour major;
Instructor: Golden, Gayle Celeste
Description: A select group of professional journalism students can take Jour 4992 as a field-based practicum class at the Saint Paul Pioneer Press in downtown St. Paul. This advanced-level professional skills class requires each student to work 14 hours per week on a reporting or production team at the newspaper. Students are assigned to local news, sports, features, entertainment, online, design/layout, photojournalism or business. Students also have a weekly lecture at the Pioneer Press - scheduled for Tuesdays, 12:30 to 2 - as well as other course assignments.
Style: 20% Lecture, 80% Laboratory.
Grading: 40% reports/papers, 10% special projects, 50% other evaluation. Performance in the professional setting.

JOUR 4993H Honors: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed; prerequisite jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Doyle, Kenneth Owen
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed; prerequisite jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Sullivan, Daniel Joseph
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed; prerequisite jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Isom, Christopher John
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed; prerequisite 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: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed; prerequisite jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Chang, Tsan-Kuo
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed; prerequisite jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Hansen, Kathleen Ann
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed; prerequisite jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Wackman, Daniel Bruce
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed; prerequisite 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: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed; prerequisite jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Golden, Gayle Celeste
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed; prerequisite jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Kirtley, Jane E
Description: Student may contact the instructor or department for information.
JOUR 4993H Honors: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed;
prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Schwitzer,Gary John
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed;
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: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed;
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 4993H Honors: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed;
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.

JOUR 4993H Honors: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed;
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: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed;
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 4993H Honors: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed;
prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Forde PhD,Kathy Roberts
Description: Student may contact the instructor or department for information.

JOUR 4993H Honors: Thesis
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed;
prereq Jour major, honors div regis, college consent, dept consent, instr consent;
Instructor: Stamm,Michael R
Description: Student may contact the instructor or department for information.

JOUR 5155 Capstone: Advanced Reporting Methods
A-F only, 3 credit(s); prereq [[3004W or 3004V], 3101, 3121, [jour major or approved IDIM major or ICP major or BIS major]] or grad student credit will not be granted if credit received for: 4155;
Instructor: Schwitzer, Gary John
Description: The focus of the Advanced Reporting Methods course this term will be on health & medical journalism. Health news is one of the most popular beats in journalism. Health care is perhaps the leading domestic issue on voters? minds. This course is intended not just for those who might want to work a health care beat fulltime. It is designed to help general assignment journalists who someday will be assigned to complex health care/medical stories and will give them skills that will help them no matter the medium in which they work or the assignment they receive. In this course, students will: - explore the many forms the health beat can take: research news, consumer news, financial (health cost) news, political & governmental news (health policy), etc. - look closely at health care reform issues: 47-million uninsured Americans, health care quality and safety issues, why the U.S. is the only industrialized nation without comprehensive universal health insurance and one of only two countries that allows direct-to-consumer drug advertising, etc. - learn to scrutinize claims coming from any source regarding health care research, products or procedures; - analyze examples of excellence in health journalism in different media and formats: - build a file of important story topics and valuable health care sources; - work on multi-platform projects to cover health topics creatively, accurately, and with balance. We welcome enrollment not only from journalism students, but also from graduate students or students in the health sciences - anyone interested in learning how journalism can tackle these complex topics.
Style: 60% Lecture, 5% Film/Video, 25% Discussion, 5% Student Presentation, 5% Guest Speakers.

JOUR 5174 Capstone: Magazine Editing and Production
A-F only, 4 credit(s); prereq [3004W or 3004V], 3101, 3155 or 3173W or 3321 or 4302, [jour major or approved IDIM major or ICP major or BIS major]] or grad student credit will not be granted if credit received for: 4174;
Instructor: Hoekstra, Joel C
Description: Student may contact the instructor or department for information.

JOUR 5251 Psychology of Advertising
A-F only, 3 credit(s); prereq jour maj or min or design comm or graphic pre-design or design comm or grap design or IDIM/ICP/BIS or instr consent
Instructor: Eighmey, John
Description: This course is concerned with psychological concepts and theories, behavioral science research techniques,
and research applications that advance understanding of the development and evaluation of advertising. Theories and concepts focusing on attitude content, structure and change are used to critically analyze advertising. The conceptual focus is primarily on the theory of planned behavior, elaboration likelihood and the role of emotions. With 42 students in the class, the classroom approach is a combination of lecture and discussion about the theories, research findings and their specific application to improve critical thinking about advertising. The course is intended for students who have studied advertising and/or behavioral sciences. WebCT is used extensively.

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

**Grading:** 20% final exam, 20% reports/papers, 20% special projects, 20% other evaluation. Two mid-term tests (each 20 percent of grade)

**Exam Format:** Essay

**JOUR 5541 Mass Communication and Public Health**

A-F only, 3 credit(s); prereq [Jour major or jour minor or grad major or IDIM major or ICP major or BIS major];

**Instructor:** Yzer, Marco

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

**JOUR 5552 Law of Internet Communications**

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] credit will not be granted if credit received for: 4552;

**Instructor:** Sanders, Amy Kristin

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

**JOUR 5601W History of Journalism**

A-F only, 3 credit(s); prereq [Jour major or jour minor or approved IDIM major or ICP major or BIS major]; IDL sections are open to non-majors; prereq do not apply to IDL sections; Meets CLE req of Writing Intensive;

**Instructor:** Stamm, Michael R

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

**JOUR 5991 Special Topics in Mass Communication: Context**

A-F only, 3 credit(s), max credits 6; prereq [Jour major or jour minor or approved IDIM major or ICP major or BIS major];

**Instructor:** Doyle, Kenneth Owen

**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 repeats 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, Daniel Joseph

**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 repeats 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 repeats 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 repeats 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 repeats 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 repeats 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 repeats 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 repeats 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:** Chang, Tsaan-Kuo

**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 repeats 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 repeats 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 repeats 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 repeats 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 repeats 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: Schwitzer, Gary 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 repeats 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 repeats 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: Stone, Ken
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 repeats 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: Kokmen, Leyla Alev
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 repeats 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 repeats 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 repeats 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 repeats 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: Forde PhD, Kathy Roberts
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 repeats 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: Stamm, Michael 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 repeats 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 repeats 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 repeats 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: Stern, Shayla Thiel
Description: Student may contact the instructor or department 
for information.

JOUR 8193 Directed Study: Health Journalism Capstone
A-F only, 4 credit(s); prereq 8191, 8195, health journalism 
MA prog;
Instructor: Doyle, Kenneth Owen
Description: Student may contact the instructor or department 
for information.

JOUR 8193 Directed Study: Health Journalism Capstone
A-F only, 4 credit(s); prereq 8191, 8195, health journalism 
MA prog;
Instructor: Stohl, Karen K
Description: Student may contact the instructor or department 
for information.

JOUR 8193 Directed Study: Health Journalism Capstone
A-F only, 4 credit(s); prereq 8191, 8195, health journalism 
MA prog;
Instructor: Finnegan Jr, John Robert
Description: Student may contact the instructor or department 
for information.

JOUR 8193 Directed Study: Health Journalism Capstone
A-F only, 4 credit(s); prereq 8191, 8195, health journalism 
MA prog;
Instructor: Sullivan, Daniel Joseph
Description: Student may contact the instructor or department 
for information.

JOUR 8193 Directed Study: Health Journalism Capstone
A-F only, 4 credit(s); prereq 8191, 8195, health journalism
JOUR 8193 Directed Study: Health Journalism Capstone
A-F only, 4 credit(s); prereq 8191, 8195, health journalism
MA prog;
Instructor: Greaves, Ian A
Description: Student may contact the instructor or department for information.

JOUR 8193 Directed Study: Health Journalism Capstone
A-F only, 4 credit(s); prereq 8191, 8195, health journalism
MA prog;
Instructor: Story PhD, Mary T
Description: Student may contact the instructor or department for information.

JOUR 8193 Directed Study: Health Journalism Capstone
A-F only, 4 credit(s); prereq 8191, 8195, health journalism
MA prog;
Instructor: Schwitzer, Gary John
Description: Student may contact the instructor or department for information.

JOUR 8193 Directed Study: Health Journalism Capstone
A-F only, 4 credit(s); prereq 8191, 8195, health journalism
MA prog;
Instructor: Southwell, Brian G
Description: Student may contact the instructor or department for information.

JOUR 8501 Seminar: The Process of Quantitative Mass Communication Research
A-F only, 3 credit(s); prereq 9 cr soc sci, EPsy 5260 or equiv or concurrent enrollment in EPsy 5260;
Instructor: Wackman, Daniel Bruce
Description: Student may contact the instructor or department for information.

JOUR 8513 Seminar: Ethnographic Methods in Mass Communication Research
A-F only, 3 credit(s); prereq [8001, 8002] or instr consent;
Instructor: Pedelty, Mark Holmes
Description: Student may contact the instructor or department for information.

JOUR 8601 Seminar: Methods in Mass Communication History Research
A-F only, 3 credit(s); prereq 8001, 8002;
Instructor: Forde PhD, Kathy Roberts
Description: Student may contact the instructor or department for information.

JOUR 8678 Seminar: Constitutional Law--Theories of Freedom of Expression
A-F only, 3 credit(s); prereq 5777 or instr consent; Credit will not be granted if credit has been received for: LAW 6059;
Instructor: Kirtley, Jane E
Description: This course will survey the evolution of First Amendment law as it affects the legal rights and privileges of the print and electronic media. Topics will include prior restraints, libel, privacy, reporters' privilege, access to courts (including free press/fair trial), commercial speech, and obscenity/indecency. The course will examine the statutory and common law rights of access to information, and will consider the constitutional implications of government regulation of media content, including the new media. We will read court opinions as well as seminal scholarly articles on the historical origins and philosophical foundations of freedom of press and speech, and review doctrinal themes.
Style: 5% Lecture, 10% Film/Video, 65% Discussion, 10% Student Presentation, 10% Guest Speakers. This is a seminar, so thorough preparation and enthusiastic participation in discussions is required.
Grading: 20% mid exam, 50% reports/papers, 10% in-class presentation, 20% class participation. Attendance is required. More than one unexcused absence will lower the student's class participation grade. Due dates for assignments are strictly enforced.

JOUR 8681 Seminar: Media and Globalization
A-F only, 3 credit(s); prereq 4801 or 5825 or instr consent;
Instructor: Chang, Tsan-Kuo
Description: Student may contact the instructor or department for information.

JOUR 8890 Special Problems in Mass Communication
A-F only, 3-4 credit(s), max credits 12, 4 repeats allowed;
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 repeats 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 repeats allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Sullivan, Daniel Joseph
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 repeats 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 repeats 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 repeats 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 repeats allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Schwartzi,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 repeats 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 repeats 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 repeats allowed;
prereq Grad 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 repeats allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Chang,Tsan-Kuo
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 repeats allowed;
prereq Grad 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 repeats allowed;
prereq Grad 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 repeats allowed;
prereq Grad 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 repeats allowed;
prereq Grad 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 repeats allowed;
prereq Grad mass comm major or minor, instr consent, dept consent;
Instructor: Schwitzer,Gary 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 repeats 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.
KIN 1050 Beginning Military Physical Fitness Training
A-F only, 1 credit(s), max credits 4, 4 repeats allowed;
Instructor: Mayo, Sean Christopher
Description: The Advanced Military Physical Fitness class uses the military model as the basic premise of instructing physical fitness. Advance Course students are assigned supervisory and leadership positions within the class. The Advance Course student is expected to participate and supervise class activities and can be assigned as a group leader of a beginning physical fitness class. The class continues to incorporate the military components of fitness such as cardiorespiratory, muscular strength, muscular endurance, flexibility and body composition with the principles of exercise such as regularity, progression, balance, variety, specificity, recovery and overload into a balanced physical fitness program. Fitness conditioning is accomplished using a variety of techniques such as running, weight training, abdominal and upper body strength exercises, circuit training and team sports activities. Classes are ability group oriented and allow individual progression within a group environment.

KIN 1871 Introduction to Kinesiology
A-F only, 2 credit(s);
Instructor: Warpeha, Joseph M
Description: Professional/disciplinary dimensions of physical activity. Lecture, discussion, small group activities, lab tours.

KIN 1905 Freshman Seminar
1-3 credit(s), max credits 6; prereq Fr;
Instructor: Petit, Moira Anne
Description: The concept of risk is one of the most important and central issues in the 21st Century human experience. A day does not pass when we all confront the inherent duality of risk. We are often affected directly or indirectly by automobile and plane crashes, toxic chemical spills and explosions, food contamination, genetic manipulation, the spread of disease like AIDS, SARS, and the flu, global climate change, terrorism, ozone depletion, species extinction, the development of nuclear capacity; the list goes on and on. Not only are we confronted with this barrage of risks, humans spend considerable time and resources engaged in weaving risk into the fabric of our behavior, whether it is work related or through recreation. The goal of this course is to explore the construct of risk through two phases: 1) knowledge building, focusing on the historical development of risk and its current manifestations in contemporary society; and 2) knowledge application, which focuses on applying conceptions of risk to various case study examples. The first phase of the course will teach students to develop a skill set that encourages self-directed learning. These include skill development in reading comprehension, library research, critical thinking, scientific reasoning and application of the scientific method. The second phase of the course will employ a problem-based learning approach with four distinct modules that will ask students to apply, experience, and evaluate risk in a variety of contexts using case studies as examples.

KIN 1993 Directed Study in Kinesiology
A-F only, 1-6 credit(s), max credits 6, 1 repeat allowed; prereq instr consent;
Instructor: Hoffman, Brandi L
Description: For lower division students planning to major in Kinesiology who wish to study a topic or problem under tutorial guidance.

KIN 3001 Lifetime Fitness and Health
A-F only, 3 credit(s); Meets CLE req of Social Science Core;
Instructor: Ingraham, Stacy Jean
Description: This class addresses current health and wellness issues at the individual, local and global levels. The components of wellness include: 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.
Style: 80% Lecture, 15% Discussion.
Grading: 14% mid exam, 14% final exam, 17% reports/papers, 18% special projects, 7% quizzes, 7% class participation, 23% laboratory evaluation.
Exam Format: Multiple choice

KIN 3027 Human Anatomy for Kinesiology Students
A-F only, 3 credit(s);
Instructor: Biltz, George Robert
Description: Student may contact the instructor or department for information.

KIN 3050 Advanced Military Physical Fitness Training
A-F only, 1 credit(s), max credits 4, 4 repeats allowed;
Instructor: Mayo, Sean Christopher
Description: The Advanced Military Physical Fitness class uses the military model as the basic premise of instructing physical fitness. Advance Course students are assigned supervisory and leadership positions within the class. The Advance Course student is expected to participate and supervise class activities and can be assigned as a group leader of a beginning physical fitness class. The class continues to incorporate the military components of fitness such as cardiorespiratory, muscular strength, muscular endurance, flexibility and body composition with the principles of exercise such as regularity, progression, balance, variety, specificity, recovery and overload into a balanced physical fitness program. Fitness conditioning is accomplished using a variety of techniques such as running, weight training, abdominal and upper body strength exercises, circuit training and team sports activities. Classes are ability group oriented and allow individual progression within a group environment.

KIN 3112 Introduction to Biomechanics
A-F only, 4 credit(s); prereq [PHYS 1101W or PHYS 1201W or PHYS 1301W or PHYS 1401V], [3027 or 3111 or ANAT 3001 or ANAT 3601 or ANAT 3611 or INMD 3001 or INMD 3601];
Instructor: Konczak, Philip
Description: Mechanical principles governing human motion. Human bone, muscle, and neurophysiology. Measurements of human performance. Clinical/applied sport biomechanics. Lab introduces technology for assessing human motor function such as electromyography or force sensors.

KIN 3112 Introduction to Biomechanics
A-F only, 4 credit(s); prereq [PHYS 1101W or PHYS 1201W or PHYS 1301W or PHYS 1401V], [3027 or 3111 or ANAT 3001 or ANAT 3601 or ANAT 3611 or INMD 3001 or INMD 3601];
Instructor: Konczak, Philip
Description: Mechanical principles governing human motion. Human bone, muscle, and neurophysiology. Measurements of human performance. Clinical/applied sport biomechanics. Lab introduces technology for assessing human motor function such as electromyography or force sensors.
experiences and to familiarize students with the array of
instrumentations 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 physical
therapists and students in human physiology 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:** 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.

**KIN 3114 Prevention and Care of Athletic Injuries**
A-F only, 3 credit(s); prereq [[3027 or 3111], CEHD student]
or instr consent
**Instructor:** Hamilton,Amy
**Description:** Principles in athletic training for prevention/care
of injury. Taping/bracing techniques. Lab.

**KIN 3125W Psychology and Sociology of Sport**
A-F only, 3 credit(s); prereq Kin major; Meets CLE req of
Writing intensive;
**Instructor:** Winges,Jim
**Description:** Introduction to sport psychology/sociology. Factors
related to individual/institutional behavior in
competitive/recreational athletics, exercise, physical education,
and rehabilitation.

**KIN 3126W Psychology and Sociology of Sport**
A-F only, 3 credit(s); prereq Kin major; Meets CLE req of
Writing Intensive;
**Instructor:** Kenow,Laura J
**Description:** Introduction to sport psychology/sociology. Factors
related to individual/institutional behavior in
competitive/recreational athletics, exercise, physical education,
and rehabilitation.

**KIN 3131W History and Philosophy of Sport**
A-F only, 3 credit(s); prereq Kin major or instr consent;
Meets CLE req of Writing Intensive;
**Instructor:** Valentini,Tommy
**Description:** Kin 3131W seeks to foster new understandings of
sport through philosophical and historical exploration. Broadened
and deepened understanding can illumine involvement in and
observation of sport as full of significance on many different
levels. Simply put, sport becomes increasingly meaningful in a
variety of ways to both participants (athletes, coaches etc.) and
observers (fans, parents, etc.) when it can be viewed and
discussed from both historical and philosophical perspectives.
Sport has shaped and continues to shape many passionate
practitioners. Our course will provide insight to how and why this
shaping process occurs. Learning to see historical and
philosophical connections is a habit and a skill that the course
seeks to cultivate. With heightened awareness we will become
more experienced and mindful practitioners of sport. Texts
include: Bergmann Drewe, S. (2003). Why Sport?: An
Introduction to the Philosophy of Sport. Toronto: Thompson
Educational Publishing, Inc. Multiple additional readings will be
used and will be made available via web ct. The course is
intended primarily for undergraduate kinesiology majors, but
other undergraduates are encouraged to enroll, space permitted

**Style:** 40% Lecture, 40% Discussion. Writing Exercises and
Group Presentations

**Grading:** 20% mid exam, 52% reports/papers, 7% quizzes, 15%
in-class presentation, 6% class participation.

**Exam Format:** Short answer, Identification of quotations, and
Essay

**KIN 3133 Motor Control, Learning, and Development**
A-F only, 3 credit(s); prereq Kin major or instr consent;
**Instructor:** Stoffregen,Thomas
**Description:** Kinesiology 3133 (Perceptual-motor control and
learning) is an introduction to the emergence and stabilization of
motor skills. It is not a course about development or
enhancement of athletic abilities, coaching, or sports
performance, although we will occasionally discuss examples
from these areas. The class is relevant to students who are
interested in movement and development over the lifespan
and issues of perception and action, in general. Most students in
previous classes have career goals in the fields of human
development, education, exercise physiology, or physical
rehabilitation. By the end of the course, students will have a
broad awareness of many of the factors involved in the
perception and control of human movement. The class will
operate at a fast pace and will require reading, research, writing,
and project development.

**Style:** 80% Lecture, 5% Discussion, 15% Laboratory.
**Grading:** 20% mid exam, 25% final exam, 10% reports/papers,
25% laboratory evaluation, 20% other evaluation. additional
exam

**Exam Format:** multiple choice, with short essays

**KIN 3143 Organization and Administration of Sport**
A-F only, 3 credit(s); prereq Kin major or instr consent;
**Instructor:** Schull,Vicki Denise
**Description:** How to organize/administer sports/activities.
Practice/class organization, meet/game organization,
facility/equipment needs, finances.

**KIN 3151 Measurement, Evaluation, and Research in
Kinesiology**
A-F only, 3 credit(s); prereq Kin major or instr consent;
**Instructor:** Pearl,Sue Lynn
**Description:** Introduction to the philosophy of evaluation and
measurement in physical education and exercise science. Test
selection, construction, evaluation, and administration. Basic
research methods, statistical analysis, and interpretation of test
scores.

**Style:** 75% Lecture, 3% Film/Video, 2% Discussion, 5% Small
Group Activities, 10% Student Presentation, 3% Demonstration,
2% Guest Speakers.

**Grading:** 20% mid exam, 20% final exam, 5% reports/papers,
12% quizzes, 20% additional semester exams, 2% attendance,
15% in-class presentation, 6% class participation.

**Exam Format:** Multiple Choice Matching True/False

**KIN 3168 Coaching Theory and Skill Development**
A-F only, 2 credit(s); prereq [Enrolled in coaching program or
Kin major or instr consent]
**Instructor:** Cardarele,Amy Jo
**Description:** Coaching theory and skill development necessary
to coach soccer.

**KIN 3173 Football 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/test for
demonstration/teaching purposes;
**Instructor:** Peterson,Gregory Jon
**Description:** Coaching theory and skill development necessary
KIN 3176 Ice Hockey 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: Carroll, Christopher K
Description: Coaching theory and skill development necessary to coach ice hockey.

KIN 3327 Teaching Physical Education in the Elementary School
A-F only, 2 credit(s); prereq Elem ed major;
Instructor: Moores, 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 of 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 [[3027 or 3111 or equiv], kin major] or instr consent;
Instructor: Biltz, 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 3696 Supervised Practical Experience
S-N only, 1-10 credit(s), max credits 10, 10 repeats 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 repeats allowed; prereq instr consent;
Instructor: Bhalla, Jennifer Anita
Description: Student may contact the instructor or department for information.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 5 repeats allowed; prereq instr consent;
Instructor: Spletzer, Elizabeth A
Description: Student selected and instructor approved clinical or research experience linked to a school-related, most likely physical education, issue or topic. Specific details will need to be discussed with the instructor and mutually agreed upon protocols and expectations will be put in written form for both the student and the instructor. Forty-hour work week for each credit at the undergraduate level
Style: Media Research or on-site experience.
Grading: 100% reports/papers. 45hrs/credit.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 5 repeats allowed; prereq instr consent;
Instructor: Lewis, Beth Ann
Description: Student-selected clinical or research experience.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 5 repeats allowed; prereq instr consent;
Instructor: Serfass, Robert C
Description: Student-selected clinical or research experience.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 5 repeats allowed; prereq instr consent;
Instructor: Ingraham, Stacy Jean
Description: Student-selected clinical or research experience.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 5 repeats allowed; prereq instr consent;
Instructor: LaVoi, Nicole Marie
Description: Student-selected clinical or research experience.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 5 repeats allowed; prereq instr consent;
Instructor: Allison JD, Rayla
Description: Student-selected clinical or research experience.

KIN 3993 Directed Study in Kinesiology
A-F only, 1-10 credit(s), max credits 10, 5 repeats allowed; prereq instr consent;
Instructor: Serfass, Robert C
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, 5 repeats allowed; prereq instr consent;

This information is accurate as of 6/9/2008 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.
KIN 3993 Directed Study in Kinesiology  
A-F only, 1-10 credit(s), max credits 10, 5 repeats allowed; 
prereq instr consent;  
Instructor: Kane, Mary Jo  
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, 5 repeats allowed; 
prereq instr consent;  
Instructor: Wade, Michael G  
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, 5 repeats 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, 5 repeats allowed; 
prereq instr consent;  
Instructor: Konczak PhD, Juergen  
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, 5 repeats allowed; 
prereq instr consent;  
Instructor: Dengel PhD, Donald Robert  
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, 5 repeats allowed; 
prereq instr consent;  
Instructor: Stoffregen, Thomas  
Description: For Kinesiology majors who wish to study a topic or problem under tutorial guidance.

KIN 3993H Directed Study in Kinesiology  
A-F only, 1-10 credit(s), max credits 10, 5 repeats allowed; 
prereq Kin Honors, instr consent;  
Instructor: Wade, Michael G  
Description: Student-selected clinical or research experience

KIN 3993H Directed Study in Kinesiology  
A-F only, 1-10 credit(s), max credits 10, 5 repeats allowed; 
prereq Kin Honors, instr consent;  
Instructor: Wiese-Bjornstal PhD, Diane  
Description: Student-selected clinical or research experience

KIN 3993H Directed Study in Kinesiology  
A-F only, 1-10 credit(s), max credits 10, 5 repeats allowed; 
prereq Kin Honors, instr consent;  
Instructor: Dengel PhD, Donald Robert  
Description: Student-selected clinical or research experience

KIN 4001H Honors Seminar in Kinesiology  
A-F only, 3 credit(s), max credits 6; prereq Kinesiology honors;  
Instructor: Stoffregen, Thomas  
Description: Contemporary issues in kinesiological research. Laboratory rotations, development of UROP project proposal, development of senior thesis topic, advanced study, career opportunities in Kinesiology, special learning opportunities.

KIN 4132 Motor Development  
A-F only, 3 credit(s); prereq credit will not be granted if credit already received for: Kin 4132;  
Instructor: Leitschuh, Carol A.  
Description: Developmental aspects of human movement behavior/learning. Life span change of motor skills.

KIN 4135 Motor Control and Learning  
A-F only, 3 credit(s); prereq Kin 3112, Kin 3133;  
Instructor: Wade, Michael G  
Description: This course covers the principles that influence the learning of motor skills; the theoretical ideas that have sought to account for both skill learning and the control and coordination of motor behavior. The course consists of a weekly lecture and discussion- quizzes to cover textbook material- an end of semester project and a take-home final exam. In addition to the lectures students will be required to complete assigned on-line labs , and keep a lab journal.

KIN 4385 Exercise Physiology  
A-F only, 4 credit(s); prereq [3385 or PHSL 3051, or equiv], kin major) or instr consent;  
Instructor: Dengel PhD, Donald Robert  
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 4697 Student Teaching: Coaching
S-N only, 3 credit(s); prereq Admission to [coaching minor or certificate program]; Instructor: Ingraham, Stacy Jean
Description: Practicum with coinciding seminars.

KIN 4741 Strength and Power Development and Program Design
A-F only, 3 credit(s); prereq Kinesiology major or coaching minor or coaching certificate or kinesiology MEd or instr consent ; Instructor: Warpeha, Joseph M
Description: How to scientifically design resistance training programs and modify them for special populations (athletes, children, seniors, etc.). How exercise prescription design works in applied field.

KIN 4891 Understanding Kinesiology Research
A-F only, 3 credit(s); prereq Intro statistics recommended; Instructor: Lewis, Beth Ann
Description: Students may contact the instructor or department for information.

KIN 5104 Physical Activities for Persons with Disabilities
A-F only, 3 credit(s); Instructor: Leitschuh, Carol A.
Description: Different approaches to providing physical education service and related movement interventions for persons with disabilities. Topics: movement skill progresses, unique considerations for specific disability categories, 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, 10% Student Presentation, 15% Field Trips, 5% Guest Speakers.
Grading: 17% final exam, 35% reports/papers, 25% special projects, 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: Kaufman, Chris L.
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 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.
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 5142 Applied Sport Nutrition for Athletic Performance
3 credit(s); prereq Grad student or instr consent; Instructor: Ingraham, Stacy Jean
Description: Latest research related to nutrition and human performance. Tools to differentiate between trends and scientific research related to optimizing human performance.

KIN 5196 Practicum: Developmental/Adapted Physical Education
S-N only, 1-4 credit(s), max credits 4, 4 repeats allowed; prereq 5103 or concurrent enrollment 5103 or 5104 or concurrent enrollment 5104 or instr consent; KIN undergraduate pre-teaching with sr status are limited to 2 practicum hrs;
Instructor: Leitschuh, Carol A.
Description: This practicum course includes participation in the public school system of physical education instruction for students with disabilities; includes a seminar component for discussion of current issues in developmental adapted physical education and exchange of ideas and problems.

KIN 5371 Sport and Society
A-F only, 3 credit(s); prereq [3126W, grad student] or instr consent; Instructor: LaVoi, Nicole Marie
Description: This course examines people and their behaviors within sport contexts from socio-cultural perspectives and how social institutions (e.g., family, church, government) and social constructions (e.g., gender, class, race, sexual identity) intersect with sport to influence behavior. Course Objectives 1. To introduce students to the field of sport sociology by providing a broad overview of the major areas of the discipline. 2. To describe the complex and politicized relationship between sport, culture, and society. 3. To understand how identity is shaped, in part, by the dominant values and norms of a particular society, and how the generally conservative institution of sport attempts to indoctrinate people into the dominant system. 4. To understand how characteristics that are unique to sport can contribute to identity formation that sometimes runs counter to prevailing societal norms (e.g. athlete privileges, proscribed violence within hockey, culture of misogyny within football locker rooms, etc.) 5. To identify and understand movements towards equality and social justice in an increasingly multicultural and globalized sporting environment. 6. To describe how social problems? such as violence, sexism, racism and homophobia in sport relate to larger society. 7. To describe how race, ethnicity, class, gender, sexual orientation, and disability are negotiated within sport. 8. To describe how technology has influenced sport and contemporary notions of the human athletic body. 9. To identify and critique future trends in sport 10. To develop critical writing and thinking skills.
Style: 50% Lecture, 10% Film/Video, 25% Discussion, 5% Laboratory, 5% Small Group Activities, 5% Guest Speakers.
Grading: 10% final exam, 15% special projects, 5% attendance, 70% reflection paper.

KIN 5375 Competitive Sport for Children and Youth

This information is accurate as of 6/9/2008 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.
KIN 5395 Exercise for Disease Prevention and Management
A-F only, 3 credit(s); prereq Undergrad [physiology or biology];
Instructor: Leon, Arthur S
Description: Exercise testing and prescription with modifications required because of special considerations associated with aging, gender differences, environmental conditions, and the presence of medical conditions.
Style: 90% Lecture, 5% Discussion, 5% Laboratory.
Grading: 40% mid exam, 40% final exam, 20% reports/papers.

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, Graded Exercise Testing, and Prescription
A-F only, 3 credit(s); prereq [3385, 4385] or instr consent;
Instructor: Bronas, Ulf Gunnar
Description: Introduction to electrocardiogram. Placement/interpretation, use in clinical exercise testing and exercise prescription. Hands-on experience in electrocardiogram for exercise testing.

KIN 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. Large responsibility 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 5641 Scientific Theory and Application of Training and Conditioning in Sport
A-F only, 3 credit(s); prereq 4385 or SPST 3641 or SPST 4641 or exercise physiology course or instr consent;
Instructor: Warpeha, Joseph M
Description: Current scientific literature on physiological adaptation through training/conditioning for sport. Applying methods in research journals to improve physiological adaptation through training/conditioning with sport specificity.

KIN 5696 Practicum in Kinesiology
S-N only, 1-6 credit(s), max credits 6, 6 repeats allowed;
prereq Grad student in KIN, instr consent;
Instructor: Ingraham, Stacy Jean
Description: Practicum 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 repeats allowed;
prereq Grad student in KIN, instr consent;
Instructor: Allison JD, Rayla
Description: Practicum 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 repeats allowed;
prereq Grad student in KIN, instr consent;
Instructor: Leon, Arthur S
Description: Practicum experience in Kinesiology under supervision of a University adviser and an agency supervisor.

KIN 5720 Special Topics in Kinesiology
1-8 credit(s), max credits 8, 8 repeats allowed; prereq Kin upper div undergrad or grad student or instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

KIN 5801 Legal Aspects of Sport and Recreation
A-F only, 4 credit(s); prereq Kin or rec major;
Instructor: Allison JD, Rayla
Description: Legal issues related to recreation, park, and sport programs/facilities in public/private sectors.

KIN 5981 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/sport science, physical education, and recreation studies. Qualitative research, field studies, and methods of introspection as alternative research strategies to traditional scientific paradigm.

KIN 5992 Readings in Kinesiology
A-F only, 1-9 credit(s), max credits 9, 1 repeat allowed;
prereq CEHD student, grad, instr consent;
Instructor: Rodgerson, Richard W
Description: Independent study under tutorial guidance.

KIN 5992 Readings in Kinesiology
A-F only, 1-9 credit(s), max credits 9, 1 repeat allowed;
prereq CEHD student, grad, instr consent;
Instructor: Spletzer, Elizabeth A
Description: Graduate level readings related to an agreed upon topic between student and instructor. Final format for presentation and overall expectations will be mutually agreed upon in written form by the instructor and student. Designed for graduate level KIN students. The instructor's expertise is in areas...
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<tr>
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KIN 5995 Research Problems in Applied Kinesiology  
A-F only, 1-6 credit(s), max credits 6, 1 repeat allowed;  
prereq [Grad or MEd student in Kin], instr 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, 1 repeat allowed;  
prereq [Grad or MEd student in Kin], instr consent;  
Instructor: Dengel PhD,Donald Robert  
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, 1 repeat allowed;  
prereq [Grad or MEd student in Kin], instr 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, 1 repeat allowed;  
prereq [Grad or MEd student in Kin], instr consent;  
Instructor: Leon,Arthur S  
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, 1 repeat allowed;  
prereq [Grad or MEd student in Kin], instr consent;  
Instructor: Konczak PhD, Juergen  
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, 1 repeat allowed;  
prereq [Grad or MEd student in Kin], instr consent;  
Instructor: Leitschuh,Carol A.  
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, 1 repeat allowed;  
prereq [Grad or MEd student in Kin], instr consent;  
Instructor: Stoffregen,Thomas  
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, 1 repeat allowed;  
prereq [Grad or MEd student in Kin], instr consent;  
Instructor: Kihl,Lisa A  
Description: Students enrolled in the M.Ed. sport management emphasis area are required to complete a culminating project. This project should be completed near the end of your M.Ed. program as a culmination of your education and experience. You are asked to identify a problem or need in your area of professional practice in Kinesiology and come up with a project that addresses this problem or need to fulfill the requirements of 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%20Form.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, 1 repeat allowed;  
prereq [Grad or MEd student in Kin], instr consent;  
Instructor: Wei, Miao An  
Description: Selected topics in physical activity/human performance.

KIN 6597 Clinical Experience II: Physical Education  
A-F only, 4 credit(s); prereq 6596, initial licensure/MEd phys ed student or instr consent;  
Instructor: Spletzer, Elizabeth A  
Description: Second phase of three ten week student teaching experiences as part of the Initial Teacher Licensure Program in K-12 Physical Education. It involves half-day supervised teaching of physical education in an urban or suburban elementary, middle, or high school physical education setting. There is also a seminar that meets on Monday of each week.

KIN 6598 Clinical Experience III: Physical Education  
A-F only, 6 credit(s); prereq [6597, init licensure/MEd phys ed student] or instr consent;  
Instructor: Spletzer, Elizabeth A  
Description: Third phase of three ten week student teaching experiences as part of the Initial Teacher Licensure Program in K-12 Physical Education. It involves full day supervised teaching of physical education in an urban or suburban elementary, middle, or high school physical education setting. There is also a weekly seminar held on Monday of each week.

KIN 8122 Seminar: Exercise Physiology  
A-F only, 2-6 credit(s), max credits 6, 1 repeat allowed;  
prereq 5122 or equiv or instr consent;  
Instructor: Petit, Maira Anne  
Description: Classic and contemporary literature in exercise physiology and allied disciplines, emphasizing contributions of major leaders in the field and opportunities for interdisciplinary research.

KIN 8126 Seminar: Sport Psychology  
A-F only, 3 credit(s); prereq 5126 or instr approval;  
Instructor: Wiese-Bjornstal PhD, Diane  
Description: Literature, theoretical constructs, research methodology, design. Focuses on student-selected topics/problems.
KIN 8211 Perception and Action
3 credit(s); prereq [CEHD or Psy] grad student or instr consent ;
Description: Student may contact the instructor or department for information.

KIN 8696 Internship: Applied Sport Psychology
S-N only, 3-6 credit(s), max credits 6; prereq 5126, 8126, Kin PhD student, instr consent ;
Instructor: Wiese-Bjornstal PhD, Diane
Description: Supervised internship; emphasis on educational sport psychology approaches to athletic performance enhancement and psychological adjustment to sport injury.

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 repeats allowed; prereq Kin PhD student or 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 repeats allowed; prereq Kin PhD student or instr consent ;
Instructor: LaVoi, Nicole Marie
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 repeats allowed; prereq Kin PhD student or 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 repeats allowed; prereq Kin PhD student or 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 repeats allowed; prereq Kin PhD student or instr consent ;
Instructor: Kane, Mary Jo
Description: Research Problems in Kinesiology

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S-N only, 1-9 credit(s), max credits 9, 9 repeats allowed; prereq Kin PhD student or 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 repeats allowed; prereq Kin PhD student or 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 repeats allowed; prereq Kin PhD student or 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 repeats allowed; prereq Kin PhD student or instr consent ;
Instructor: Dengel PhD, Donald Robert
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 repeats allowed; prereq Kin PhD student or 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 repeats allowed; prereq Kin PhD student or 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 repeats allowed; prereq Kin PhD student or instr consent ;
Instructor: Kihl, Lisa A
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 repeats allowed; prereq Kin PhD student or instr consent ;
Instructor: Pettit, Moira Anne
Description: Research Problems in Kinesiology

KIN 8995 Research Problems in Kinesiology
S-N only, 1-9 credit(s), max credits 9, 9 repeats allowed; prereq Kin PhD student or instr consent ;
Instructor: Weiss, Maureen R
Description: Research Problems in Kinesiology

KOR 1012 Beginning Korean
5 credit(s); prereq 1011; Credit will not be granted if credit has been received for: KOR 4002;
Instructor: Cho, Hangtae
Description: Kor 1012 is the second half of the beginning Korean. This course is designed to assist students to develop mid-beginning level skills in the Korean language. These skills are speaking, listening, reading, and writing, as well as cultural understanding. Kor 1012 is designed for students who have already mastered the materials covered in Kor 1011. This course will focus on grammatical patterns, such as sentence structures, some simple grammatical points, and some survival level use of the Korean language. Additionally, speaking, reading, writing, and listening comprehension will all be emphasized, with special attention to oral speech. It is strongly recommended for each student to have at least one Korean native language partner so that you can immediately use the concepts, grammar and vocabulary we study in class. Application will be available at the Tandem Conversation Partner Program, @ #319 Nolte Hall, MN English Center.
Style: lectures, listening lab, speaking assignments
Grading: short quizzes and final exams, assignments, and class performance
Exam Format: both written and oral

KOR 3022 Intermediate Korean
5 credit(s); prereq 3021; Credit will not be granted if credit has been received for: KOR 4004;
Instructor: Yoon, Sang-Seek
Description: This course intends to provide students with four skills, speaking, reading, writing and listening, of Korean language at intermediate level. Essential expressions and vocabularies will be introduced for students to adjust themselves in Korea if they go study abroad in Korea. Also, cultural aspect of the language will be discussed in the class for better understanding of Korean language and society.

KOR 3032 Third Year Korean
4 credit(s); prereq 3031;
Instructor: Yoon, Sang-Seek
Description: Student may contact the instructor or department for information.

KOR 4002 Beginning Korean
3 credit(s); prereq 4001, grad student; Credit will not be granted if credit has been received for: KOR 1012;
LAMP 4177 Pathology for Allied Health Students
3 credit(s); prereq [One anatomy course, one physiology course, registered in allied health program] or instr consent;
Instructor: Wilke,Mark Steven
Description: The first part of this large, lecture course covers general pathology; this is followed by organ system pathology. The class meets for 3 lecture hours per week (M-W-F, from 8:00-8:50 AM), earning 3 credits for the semester. The course is divided into five units, each followed by a unit examination. There is no course comprehensive exam. Students enrolled are primarily in allied health programs of Nursing and Medical Technology. The course is taught by a variety of lecturers, each covering his/her own area of expertise. Purchase of the required course handout package and the required course textbook is necessary.
Style: 100% Lecture.
Grading: 100% quizzes. scores from the 5 unit exams are used for the final grade
Exam Format: Multiple choice

KOR 4004 Intermediate Korean
3 credit(s); prereq 4003, grad student; Credit will not be granted if credit has been for KOR 3022;
Instructor: Yoon,Sang-Seok
Description: This course intends to provide students with four skills, speaking, reading, writing and listening, of Korean language at intermediate level. Essential expressions and vocabularies will be introduced for students to adjust themselves in Korea if they go study abroad in Korea. Also, cultural aspect of the language will be discussed in the class for better understanding of Korean language and society.

KOR 4006 Third Year Korean
3 credit(s); prereq 4005, grad student;
Instructor: Yoon,Sang-Seok
Description: This course is focused on enhancing students’ Korean to intermediate-advanced level by widening vocabularies and practicing more complex structure in Korean language. More readings in Korean text will help students’ better understanding of Korean’s sentiments. Discussions on Korean culture and society will widen for students to understand Korea. Students will also learn basic Chinese characters which are essential for learning Korean language.

KOR 4042 Advanced Readings in Modern Korean
4 credit(s); prereq 4041 or equiv or instr consent;
Instructor: Cho,Hangtae
Description: Student may contact the instructor or department for information.

KOR 5140 Readings in Sino-Korean Texts
3 credit(s), max credits 9, 3 repeats 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.

KOR 1202 Making the Mississippi
A-F only, 3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme;
Instructor: Nunnally,Patrick
Description: "Making the Mississippi" examines how the Mississippi River has been shaped and re-shaped as a human landscape for the past two hundred years or so. The course focuses on community redevelopment projects as case studies of public engagement in urban design. Students will gain first-hand knowledge of a number of Mississippi-River related projects currently underway in the Twin Cities region and will develop models for increased public participation by particular communities. This course will use WebCT.
Style: 65% Lecture, 35% Discussion.
Grading: 40% mid exam, 20% final exam, 40% special projects.
Exam Format: short answer

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 Other Humanities Core;
Instructor: Agee,Bradley Steele
Description: Student may contact the instructor or department for information.

LA 1401 The Designed Environment
A-F only, 3 credit(s);
Instructor: Agee,Bradley Steele
Description: The course is the designed environment - the intentionally designed places we frequent and inhabit. Efforts will be directed towards learning to "see&quote; design in the everyday world in order to understand the ideas and principles on which the designed environment is built. The course will be looking at how the professions of architecture, landscape architecture and urban design (among others) combine to influence the shape and function of our homes, cities and region. Observe and critique the interaction between human needs/customs with biophysical systems in which we live. Students will be asked to look at designed spaces for themselves. Lectures and readings will support investigations.
Grading: 30% mid exam, 30% final exam, 40% laboratory evaluation.

LA 3002 Informants of Creating Landscape Space
A-F only, 3 credit(s); prereq 3001, Arch 3401, 3501; Meets CLE req of Other Humanities Core;
Instructor: Sokolski,Tracey R
Description: Student may contact the instructor or department for information.

LA 3204 Landscape Ecology
A-F only, 3 credit(s); prereq EEB 3001 or equiv;
Instructor: STAFF
Description: This is an introductory course for freshman, sophomore, and junior landscape architecture and environmental studies students. The course uses a question-based framework to develop a better understanding about how ecological concepts and principles inform landscape planning, design, and management. Students will have the opportunity to choose among several pre-selected landscapes and to apply aspects of this framework to the development of a final group paper and class
LA 3413 Introduction to Landscape Architectural History
A-F only, 3 credit(s); prerequisite One course in history at 1xxx or higher; Meets CLE req of International Perspect Theme;
Instructor: STAFF
Description: Study of landscape architecture's roots by examining the creation of landscapes over time. Areas of emphasis include ecological and environmental issues; and the political, economic, and social contexts of landscape architectural works.

LA 5203 Ecological Dimensions of Space Making
A-F only, 6 credit(s); prerequisite LA major or instructor consent; recommended for both BED and Grad students;
Instructor: Pitt, David George
Description: Student may contact the instructor or department for information.

LA 5204 Landscape Ecology
3 credit(s); prerequisite B.E.D. accelerated status or LA grad student or instructor consent;
Instructor: STAFF
Description: Relationships among spatial patterns, temporal patterns and ecological processes in the landscape are explored. Topics include factors affecting landscape patterns, measurement of landscape pattern, material transport through landscapes, effects of landscape pattern on population dynamics, and landscape planting.

LA 5372 Computer Methods II
S-N only, 1 credit(s); prerequisite Arch/LA 5371, LA grad or instructor consent; Credit will not be granted if credit has been received for: ARCH 5372;
Instructor: Colberg, Donald Alexander
Description: Student may contact the instructor or department for information.

LA 5400 Topics in Landscape Architecture
1-3 credit(s), max credits 12, 12 repeats allowed; prerequisite B.E.D. accelerated status or LA grad or instructor consent;
Instructor: STAFF
Description: Contemporary issues in Landscape Architecture

LA 5401 Directed Studies in Emerging Areas of Landscape Architecture
1-3 credit(s), max credits 12, 12 repeats allowed; prerequisite instructor consent;
Instructor: STAFF
Description: Advanced independent studies in areas of student's choice

LA 5402 Directed Studies in Landscape Architecture History and Theory
1-6 credit(s), max credits 12, 12 repeats allowed; prerequisite instructor consent;
Instructor: STAFF
Description: Advanced independent studies in areas of Landscape Architecture dealing with history and theory of student's choice.

LA 5403 Directed Studies in Landscape Architecture Technology
1-6 credit(s), max credits 12, 12 repeats allowed; prerequisite instructor consent;
Instructor: STAFF
Description: Advanced independent studies in areas of Landscape Architecture with technology of the student's choice.

LA 5404 Directed Studies in Landscape Architecture Design
1-6 credit(s), max credits 12, 12 repeats allowed; prerequisite instructor consent;
Instructor: STAFF
Description: Advanced independent studies in areas of Landscape Architecture design of the student's choice.

LA 5405 Interdisciplinary Studies in Landscape Architecture
A-F only, 1-6 credit(s), max credits 12, 12 repeats allowed; prerequisite instructor consent;
Instructor: STAFF
Description: Research, planning, and/or design projects. 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 5413 Introduction to Landscape Architectural History
A-F only, 3 credit(s); prerequisite One course in history at 1xxx or higher; Meets CLE req of International Perspect Theme;
Instructor: STAFF
Description: Introductory course examines the multiple roots of landscape architecture by examining the making of types of landscapes over time. Emphasis on ecological and environmental issues, and issues related to political, economic, and social contexts of landscape architectural works.

LA 8205 Urban Form Options: Landscape Architecture Studio
6-8 credit(s), max credits 8, 1 repeat allowed; prerequisite 2 yrs of studio, grad LA major or instructor consent;
Instructor: Hewitt, Clinton N
Description: Student may contact the instructor or department for information.

LA 8302 Professional Practice
A-F only, 3 credit(s); prerequisite 8205, grad LA major or instructor consent;
Instructor: Murphy Jr, Richard T
Description: Student may contact the instructor or department for information.

LA 8400 Topics in Landscape Architecture
1-3 credit(s), max credits 12, 12 repeats allowed; prerequisite Grad LA major or instructor consent;
Instructor: Martin, Roger B
Description: Meaning and Making - (Th 11:15-2:00 pm) -LA 8400, 004; 3 cr. This Seminar, first offered from 1998-2006 by Landscape Architecture Professors Emeritus Roger Martin and Roger Clemence, took a one year break in 2007. In 2008, it will be resurrected, but with the major enhancements of added instructional and discussion leadership (for the first time) from former LA 8400 students (now MLA graduates) Anna Claussen and Tony Siebenaler-Ransom. Employing a combination of readings, writings, site explorations, place analyses, a PLACE JOURNAL filled with personal place insights and the probing, via slide presentations, of ILLUSION IN PLACE CREATION, the "team-of-four" will invite students to dig into pasts and press forward into futures as a way to better understand the roles of physical and social PLACE (its Meaning and Making) in each of their lives and in the lives of others. There are certain universalities in PLACE PERCEPTIONS that we'll expect to encounter during the semester, but the nuances of difference found iin contrasting filters, changeable lenses, the implications of PERSONAL PLACE HERITAGE, and the potential impacts of GLOBAL WARMING and ENERGY SOURCE REVISIONS also will receive close scrutiny as the seminar meetings and explorations move from Winter into Spring. Enrollment will be capped at a maximum of 16 students, with most drawing from the graduate level in Landscape Architecture; but a limited number of openings will be held for graduate degree candidates from related disciplines, if given instructor permission. (Please contact Roger Clemence at (612) 920-9234, for a non-LA grad student access). General questions about the seminar also can be directed to Roger Clemence by phone or by email at cleme001@umn.edu.

LA 8401 Directed Studies in Landscape Architecture
1-3 credit(s), max credits 12, 12 repeats allowed;
Instructor: Martin, Roger B
Description: Student may contact the instructor or department for information.
LA 8400 Topics in Landscape Architecture  
1-3 credit(s), max credits 12, 12 repeats allowed; prereq Grad LA major or instr consent;  
Instructor: Koepke, John Albert  
Description: Student may contact the instructor or department for information.

LA 8400 Topics in Landscape Architecture  
1-3 credit(s), max credits 12, 12 repeats allowed; prereq Grad LA major or instr consent;  
Instructor: Galatowitsch, Susan M  
Description: Student may contact the instructor or department for information.

LA 8400 Topics in Landscape Architecture  
1-3 credit(s), max credits 12, 12 repeats allowed; prereq Grad LA major or instr consent;  
Instructor: Miller, Kristine Frances  
Description: Student may contact the instructor or department for information.

LA 8400 Topics in Landscape Architecture  
1-3 credit(s), max credits 12, 12 repeats allowed; prereq Grad LA major or instr consent;  
Instructor: Sykes, Robert D  
Description: Student may contact the instructor or department for information.

LA 8400 Topics in Landscape Architecture  
1-3 credit(s), max credits 12, 12 repeats allowed; prereq Grad LA major or instr consent;  
Instructor: Koepke, John Albert  
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 repeats allowed; prereq instr consent;  
Instructor: Pitt, David George  
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 repeats allowed; prereq instr consent;  
Instructor: Neckar, Lance M  
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 repeats allowed; prereq instr consent;  
Instructor: Sykes, Robert D  
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 repeats allowed; prereq instr consent;  
Instructor: Pitt, David George  
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 repeats allowed; prereq instr consent;  
Instructor: Krinke, Rebecca Jean  
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 repeats allowed; prereq Grad LA major or 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 repeats allowed; prereq Grad LA major or instr consent;  
Instructor: Martin, Roger B  
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 repeats 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 repeats allowed; prereq Grad LA major or instr consent;  
Instructor: Koepke, John Albert  
Description: Student may contact the instructor or department for information.
Grad LA major or instr consent; Instructor: Olin, Peter Joel
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 repeats 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 repeats allowed; prereq Grad LA major or 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 repeats allowed; prereq Grad LA major or instr consent; Instructor: Martin, Roger B
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 repeats allowed; prereq Grad LA major or instr consent; Instructor: Musacchio, Laura R
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 repeats 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 repeats allowed; prereq Grad LA major or instr consent; Instructor: Sykes, Robert D
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 repeats 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 repeats 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 repeats 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 repeats allowed; prereq Grad LA major or instr consent; Instructor: Koepke, John Albert
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 repeats allowed; prereq Grad LA major or instr consent; Instructor: Galatowitsch, Susan 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 repeats 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
1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad LA major or instr consent
Instructor: Neckar, Lance M
Description: Student may contact the instructor or department for information.

LA 8404 Directed Studies in Landscape Architecture
1-6 credit(s), max credits 6, 1 repeat 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
1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad LA major or instr consent
Instructor: Miller, Kristine Frances
Description: Student may contact the instructor or department for information.

LA 8404 Directed Studies in Landscape Architecture
1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad LA major or instr consent
Instructor: Musacchio, Laura R
Description: Student may contact the instructor or department for information.

LA 8575 The Art and Ecology of Landscape Detail
3 credit(s); prereq Grad LA major or instr consent
Instructor: Krinke, Rebecca Jean
Description: Student may contact the instructor or department for information.

LGTT 5101 Applications of Technology in Language Teaching
3 credit(s); Credit will not be granted if credit has been received for: LGTT 5110
Instructor: Rowekamp, Jenise Katherine
Description: The course provides an opportunity for current and prospective teachers at all levels to gain systematic knowledge of the uses and resources of educational technology (audio, video, computer) for language teaching, of their role in enhancing language instruction, and of the theoretical and methodological justifications for their use. Class meetings include lecture, demonstration, discussion, hands-on exploration and student presentation. Students are encouraged to apply what they are learning to the language-teaching experience through observations, exploration, and the creation of activities and materials. Each graded activity includes a writing component in which the students describe, evaluate and reflect upon the learning activities and their application to teaching. The course will be web-enhanced with a WebVista course site.
Style: 10% Lecture, 10% Discussion, 40% Laboratory, 5% Small Group Activities, 5% Student Presentation, 20% Demonstration, 10% Web Based.
Grading: 10% final exam, 80% special projects, 4% in-class presentation, 6% other evaluation.
Exam Format: Essay and take home

LGTT 5110 Technology in the Second Language Classroom
2 credit(s); Credit will not be granted if credit has been received for: LGTT 5101
Instructor: Rowekamp, Jenise Katherine
Description: This course is a hybrid version of LGTT 5101 that consists of two Saturday in-class sessions with the remainder of class time online via a WebVista course site. The course is designed for new and experienced second-language teachers and will provide an overview of available technological resources for language teaching, of their role in enhancing language instruction, and of the theoretical and methodological justifications for their use. Students are required to expand on course elements through learning modules and graded activities that are designed for students to apply what they are learning to the language-teaching experience through online discussion, feedback to peers, and the creation and posting of web-based teaching and learning materials. Each graded activity includes a writing component in which the students describe, evaluate and reflect upon the learning activities and their application to
Latin
245 Nicholson Hall

LAT 1002 Beginning Latin II
5 credit(s); prereq Grade of at least [C- or S] in 1001 or instr consent;
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 1002 will help strengthen your grasp of English grammar and vocabulary. The prerequisite for this course is completion of Latin 1001 with a grade of C- or higher (or S) or instructor consent.
Style: 50% Lecture, 50% Discussion.
Exam Format: translation, grammar

LAT 3004 Intermediate Latin Poetry: Vergil
4 credit(s); prereq 3003 or 3113 or dept consent
Instructor: STAFF
Description: Selections from Vergil's Aeneid for students who have had at least three semesters of Latin; introduction to Latin meter. Prerequisite: completion of Latin 3003 with a grade of C- or higher (or S) or instructor consent.
Style: 40% Lecture, 30% Discussion. Recitation
Exam Format: Short answer and essay

Latin American Studies

LAS 3402W Modern Latin America 1825 to Present
4 credit(s); Credit will not be granted if credit has been received for: HIST 3402W; Meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: This course surveys developments in Latin America from the Enlightenment and Age of Independence to the rise of bureaucratic authoritarianism (ca. 1750-present). The course will focus on the rise of the nation-state, art, culture, and diplomatic relations within Hispanic America. Themes will include race, class, gender, sexuality, and space.
Grading: 20% final exam, 50% reports/papers, 10% class participation, 20% other evaluation. Informal writing assignments.
Exam Format: Essay

Law School
285 Mondale Hall

LAW 6021 Seminar: L.L.M. Legal Research and Writing
A-F only, 1-2 credit(s), max credits 2, 1 repeat allowed;
Instructor: STAFF
Description: How to conduct legal research, interpret statutes, analyze cases, and write research papers and legal memoranda. Written English, style/form used by U.S. lawyers to present a legal argument.

LAW 6022 Seminar: National Security Law
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 6025 Wrongful Convictions
A-F only, 2 credit(s);
Instructor: STAFF
Description: Causes of wrongful convictions. Students practice law in safe, classroom setting. Run in conjuction with Innocence Project of MN.

LAW 6028 L.L.M. Judicial Observation
P-F only, 1-2 credit(s), max credits 2, 1 repeat allowed;
Instructor: STAFF
Description: Students work with a judge and observe how our court systems work in the United States

LAW 6033 Holocaust, Genocide, and the Law
A-F only, 2 credit(s);
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 6051 Business Associations/Corporations I
A-F only, 4 credit(s);
Instructor: STAFF
Description: The initial part of this course is an introduction to the general law of multi-person unincorporated business organizations, principally partnerships, limited partnerships and limited liability companies. Matters covered include the procedures for forming such organizations and the rights and obligations of the participants as among themselves and with respect to third persons. The remaining class hours constitute the first portion of the basic Corporations course, and will cover such matters as corporate organization; the distribution of powers among the corporate board of directors, its officers and
it's stockholders; the proxy system; control devices in the close corporation; and the fiduciary duties of directors, officers and controlling shareholders. Matters dealing with "corporate finance" (issuance of shares, payment of dividends, and corporate reorganizations) are covered Corporations II.

**LAW 6052 Sales**  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
**Instructor:** STAFF  
**Description:** The study of contracts for the sale of goods under Article 2 of the Uniform Commercial Code; the problems involve formation of such contracts, the terms, the mechanics of performance, and the remedies for various defaults.

**LAW 6054 Corporate Finance**  
A-F only, 2 credit(s); prereq Business Associations/Corporations I;  
**Instructor:** Adams, Edward Scott  
**Description:** Issues of corporate finance dominate American business and often personal decision-making. Few are not at least curious about how the stock market is performing and why merger and acquisition activity is booming. This course introduces students to fundamental principles of modern corporate finance. Specifically, the course provides a survey of issues and concepts such as: net present value, valuing bonds and stocks, capital market theory and the capital asset pricing model, the efficient capital markets hypothesis, capital structure, dividend policy, accessing the private and public debt and equity markets, options and mergers and acquisitions.

**LAW 6055 Advanced Corporate Law**  
A-F only, 3 credit(s);  
**Instructor:** STAFF  
**Description:** This course will focus on corporate finance and reorganization. Specifically, the course will explore: methods of financing the corporate enterprise including various capital stock structures, term loans, bonds and debentures; payments to stockholders by way of dividends, redemptions or purchase of shares; and reorganizations including mergers, sales of assets and recapitalization. The course may also familiarize students with the use, advantages and disadvantages of economic analysis in resolving the problems and questions raised by discussion of the before-mentioned subject areas.

**LAW 6057 Judicial Externship**  
P-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
**Instructor:** STAFF  
**Description:** Each student is assigned to a judge and serves as a part-time law clerk for one semester. Positions are available with federal district, bankruptcy, and magistrate judges, with state court of appeals and district court judges, and with tribal courts. Every effort is made to place students according to their expressed preferences among the courts. The students prepare research memoranda, observe judicial proceedings, and participate in the drafting of opinions and orders. A student will work for a judge for 100 hours (2 credits) or for 150 hours (3 credits), as agreed with the judge. In addition, students will periodically attend a one hour seminar in which readings on the judicial process will be discussed and will view a judicial training session. Enrollment is limited to 30 students. The periodic class meetings will be held during the noon hour. A complete schedule will be distributed at the first class meeting. You should arrange your class schedule so you have several large blocks of time available to work for a judge; free mornings are especially important for attending court hearings.

**LAW 6059 Seminar: Constitutional Law, Theories of Freedom of Expression**  
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: JOUR 8678;  
**Instructor:** STAFF  
**Description:** Student may contact the instructor or department for information.

**LAW 6100 Taxation I**  
A-F only, 3-4 credit(s);  
**Instructor:** STAFF  
**Description:** This basic course in federal income taxation introduces the student to the Internal Revenue Code and the income taxation of individuals through the following topics: definition of income, relevant accounting concepts, exclusions, deductions, income splitting, sales and dispositions of property, amortization, capital losses, and current issues of tax policy.

**LAW 6102 Mergers and Acquisitions**  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
**Instructor:** Hill, Claire  
**Description:** Student may contact the instructor or department for information.

**LAW 6103 Privacy**  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
**Instructor:** STAFF  
**Description:** The collection and utilization of personal data has become increasingly important to our society in varied contexts including national security, commerce, health care, and information infrastructure. This course considers the emerging law of data privacy relevant to those contexts, especially in light of new technology. What is the appropriate nature and scope of individual privacy interests in the 21st century? How should the law balance those interests against legitimate competing priorities? Who should develop the law? courts, legislatures, or other entities? Students will learn about both relevant existing legal doctrine and theoretical or policy-based perspectives on data privacy issues.

**LAW 6107 Bankruptcy**  
A-F only, 3 credit(s);  
**Instructor:** STAFF  
**Description:** After surveying the rights of creditors and debtors under state law, this course will consider the impact of bankruptcy upon secured and unsecured creditors and stockholders. The bankruptcy trustee's avoiding powers will be studied. Chapters 7, 11 and 13 liquidations and reorganizations will be surveyed with selected topics considered in-depth. The negotiated settlements and "workout agreements" which characterize this area of practice will be emphasized.

**LAW 6113 State and Local Tax**  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
**Instructor:** STAFF  
**Description:** This course covers how states and local government bodies raise revenues, and how the U.S. Constitution limits that ability. Students interested in public policy, state and local government, and the interaction of the states and federal government will likely enjoy the class. Students need not have taken any previous tax course to enroll in this course. Students also do not need to have liked federal income tax to take and enjoy this class.

**LAW 6114 Partnership Taxation**  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
**Instructor:** STAFF  
**Description:** Federal income taxation of partnerships and limited liability companies including formation, operation and management, distributions, allocations, sales and liquidations of entity interests, and terminations.

**LAW 6116 Pretrial Skills: Lawyering Process**  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
**Instructor:** STAFF  
**Description:** This course focuses on pre-trial advocacy skills. Practically every lawyer interviews and counsels clients and engages in negotiation of transactions or resolution of disputes. Theoretical and practical exploration of these topics and other topics including fact development and case planning, alternative dispute resolution, discovery and motion practice form the basis for this course. Each topic will be explored with readings and simulated exercises. Specific topics may vary from year to year.

**LAW 6118 Criminal Appeals Clinic**  
A-F only, 2 credit(s);
LAW 6126 Water Law
A-F only, 3 credit(s);
Instructor: STAFF
Description: This course examines the legal mechanisms by which society allocates and protects its most vital natural resources: water. The primary emphasis is on current legal and policy debates, but the course also addresses the history of water policy and the evolution of water law in the United States. The course explores the riparian and prior appropriation doctrines governing private use of surface waters; public rights in water resources; federal and state water resources development, allocation, and control; alternative means of responding to the growing worldwide scarcity of fresh water; the appropriate role for market-based approaches; protection of threatened groundwater resources; environmental limits on water development (including the Endangered Species Act, the Clean Water Act, the Safe Drinking Water Act, and the public trust doctrine); watershed protection and restoration; Native American water rights; and mechanisms for resolving or avoiding interstate and international conflicts over shared water resources. Although courses in Water Law have traditionally focused on issues arising in the arid Western United States where competing claims on water are most acute, the comparatively water-rich East is also becoming increasingly water-constrained, prompting reconsideration of longstanding legal doctrines and policies. This course will attempt to balance Western and Eastern perspectives, while also addressing important international developments. Examination.

LAW 6152 Federal Jurisdiction
A-F only, 3 credit(s);
Instructor: Stras, David Ryan
Description: This three-credit course will cover approximately half of a traditional five- or six-credit “Federal Courts” curriculum; the other half is covered in “Federal and State Courts.” Students may take either course or both courses, in any order. This course will explore issues that were raised in Constitutional Law and Civil Procedure regarding federal courts and the interaction between the federal and state judicial systems. Topics discussed may include Congressional power over jurisdiction, legislative courts, justiciability, appellate jurisdiction, Supreme Court review over state court decisions, and general principles of federal subject matter jurisdiction. This course is important for anyone planning a judicial clerkship or a legal career that includes litigation in federal courts.

LAW 6153 Wills and Trusts
A-F only, 4 credit(s);
Instructor: STAFF
Description: This course deals with donative freedom. It covers intestate succession, wills, trusts, will substitutes, the rudiments of gifts and estate taxation, and future interests. It also raises professional responsibility issues unique to the estate planning process. The goal of the course is to allow students to become familiar with the field and to prepare them for study in other courses and seminars.

LAW 6200 Remedies
A-F only, 3 credit(s);
Instructor: STAFF
Description: Equity, damages, and restitution. The heaviest emphasis is upon equitable remedies in both public and private law cases. Temporary and permanent injunctions; contempt; equitable liens and constructive trusts.

LAW 6201 Land Use Planning
A-F only, 3 credit(s);
Instructor: Orfield Jr, Myron W
Description: This course examines government regulation of property and the limits on its powers. The materials cover the practical aspects of legal practice in this area, such as rezonings, as well as the theoretical aspects. Topics include urban sprawl, takings, land preservation, and exclusionary zoning.

LAW 6202 Conflicts
A-F only, 3 credit(s);
Instructor: Cooper, Laura J
Description: How does a court decide what law to apply in a case with multi-state aspects? When is a judgment of another jurisdiction binding elsewhere? Vital course for prospective litigators in state and federal courts. A lawyer who has not taken this course would be unlikely even to be able spot the critical issues.

LAW 6206 ADR in the Workplace
A-F only, 3 credit(s);
Instructor: STAFF
Description: The legal rights of workers are often determined in arbitration or mediation rather than in litigation. In turn, these ADR procedures ultimately affect how workers’ statutory and contractual rights are defined. This course explores arbitration and mediation of workplace disputes involving both union and non-union employees. It addresses arbitration and mediation procedures, the role of advocates and neutrals in arbitration and mediation, the legal context for arbitration and mediation, and how the arbitration process defines substantive rights of union-represented employees. The course includes discussion of readings of essays and court and arbitration decisions, as well as role-playing simulations of arbitration and mediation.

LAW 6206 Mediation Training
A-F only, 3 credit(s);
Instructor: Chalmers, Carolyn
Description: Student may contact the instructor or department for information.

LAW 6208 Local Government Economic Law
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;
Instructor: Nelson, Debra R
Description: Student may contact the instructor or department for information.

LAW 6211 Federal Securities Regulations
A-F only, 3-4 credit(s), max credits 4, 1 repeat allowed; prereq Business Associations/Corporations I;
Instructor: STAFF
Description: This course covers concepts and problems in the regulation of securities transactions under the Securities Act of 1933, the basic federal statute governing rights, duties, and remedies in connection with the financing of business operations through the distribution of securities to the public. Topics covered will include the definition of a security and the exemptions from federal registration (crucial knowledge for the small business advisor), the registration process, the contents of the prospectus, civil liabilities, and the applicability of the 1933 Act to secondary transactions (sales of securities by persons other than the issuing entity). Because of the expansive scope of federal securities law and the draconian nature of the penalties imposed even for “innocent” violations, knowledge of this material is vital not only for business lawyers who advise large corporations but also those whose business clients are closely held. The course will not focus, however, on litigation strategy or technique. Classes are problem oriented.

LAW 6213 Modern Real Estate
A-F only, 3 credit(s);
Instructor: STAFF
Description: The course examines the acquisition and
development of real property. Topics include listing agreements, purchase agreements, conveying, real estate finance and security instruments, foreclosures, mechanics' liens, and forms of real estate development.

**LAW 6214 Insurance**  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
Instructor: STAFF  
**Description:** Insurance is omnipresent in the practice of law because insurance is the primary means by which companies and individuals deal with risks. Lawyers, of course, often must be a living either by counseling clients about how to plan for risks or by serving clients whose risks have developed into losses. This course will introduce students to fundamental principles of insurance law and regulation. It will survey the nature and function of insurance, insurance contract formation and meanings, and insurance regulation. We will also look at specific legal issues relating to different lines of insurance, such as property, life, health, and liability insurance.

**LAW 6219 Evidence**  
A-F only, 3-4 credit(s), max credits 4, 1 repeat allowed;  
Instructor: STAFF  
**Description:** A study of relevancy, admission and exclusion of evidence, direct and cross-examination, judicial notice, hearsay, expert testimony, burdens of proof and presumptions, privileged communications. A study of relevancy, admission and exclusion of evidence, direct and cross-examination, judicial notice, hearsay, expert testimony, burdens of proof and presumptions, privileged communications.

**LAW 6225 Basic Patent Litigation**  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
Instructor: STAFF  
**Description:** The course addresses a variety of legal issues relating to patent litigation, including choice of law, personal jurisdiction, subject matter jurisdiction, venue, declaratory judgment actions, Rule 11, specificity of infringement allegations in the complaint, claim construction evidence and hearings, infringement theories in the litigation context, principal affirmative defenses used in litigation, injunctions, damages, willfulness, and other legal issues. The course addresses a variety of legal issues relating to patent litigation, including choice of law, personal jurisdiction, subject matter jurisdiction, venue, declaratory judgment actions, Rule 11, specificity of infringement allegations in the complaint, claim construction evidence and hearings, infringement theories in the litigation context, principal affirmative defenses used in litigation, injunctions, damages, willfulness, and other legal issues.

**LAW 6227 Seminar: Products Liability**  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
Instructor: STAFF  
**Description:** The recent explosive expansion of common law and statutory rights and remedies designed to protect consumers from defective and dangerous products.

**LAW 6236 Indian Law**  
A-F only, 3 credit(s);  
Instructor: STAFF  
**Description:** This course covers the unique jurisdictional, regulatory and business environment on Indian reservations and involving Indian people in the United States. The core of the course involves developing an understanding of the relationship between the United States, the Indian tribes, and states, and issues that arise under the tripartite federalist system in the United States. It also reaches issues of sovereignty, race theory, separation of powers, and several substantive law fields, including criminal law, natural resources, constitutional law, tax law, and sovereign immunity. For purposes of context, the course also touches on the development of Indian policy over the past two and a half centuries and also discusses some facets of internal tribal laws and tribal courts.

**LAW 6241 First Amendment Law**  
A-F only, 3 credit(s);  
Instructor: STAFF  
**Description:** An in-depth inquiry into the First Amendment, including both the doctrine and theory of free expression. Topics will include political incitement and public fora; hate speech; obscenity and pornography; campaign finance reform and commercial speech; mass media regulation and access to government and compelled speech and associational rights. The religion clauses may also be covered. Religion clause coverage may include school prayer and parochial school vouchers; religious exemptions and accommodation; and government-sponsored religious symbols.

**LAW 6244 Employee Benefits**  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
prereq Taxation I;  
Instructor: STAFF  
**Description:** The course is a general introduction to employee benefit plans, including retirement-type plans (401ks and traditional pension plans) and health and welfare plans. The public policies behind the very complex rules governing these plans are emphasized to assist understanding of the purpose and goals of the regulatory framework. Practical real-life application of these rules in law practice will be routinely included. The grade will be based solely on a short-essay, open book final exam.

**LAW 6245 Interviewing, Counseling , and Negotiating**  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
prereq dept consent;  
Instructor: STAFF  
**Description:** This course will focus on basic skills necessary for all lawyers. We will discuss and do simulated exercises in each of the skills, focusing on skill development and self-reflection to improve skills. The course will emphasize planning, performance and reflection over a range of civil and criminal cases.

**LAW 6248 Advanced Patents**  
A-F only, 2 credit(s);  
Instructor: STAFF  
**Description:** This two credit course covers advanced topics of patent law not covered in the basic course. Topics will include inventorship, remedies, domestic effects of foreign filings, Patent Office authority, obviousness type double patenting, and related subjects. Students will be evaluated by an in-class final examination.

**LAW 6400 International Environmental Law**  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
Instructor: STAFF  
**Description:** Student may contact the instructor or department for information.

**LAW 6402 Food and Drug Law**  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
Instructor: STAFF  
**Description:** The primary focus of the class will be on the Food, Drug and Cosmetic Act and the FDA. In addition, time will be spent on specific food and drug aspects of other areas of the law. For example, the class will review the special rules and cases in the product liability field relating to food and drugs and the interface between food and drug regulation and subjects such as environmental law, the practice of medicine, and free choice in medical care.

**LAW 6600 Professional Responsibility**  
A-F only, 2-3 credit(s);  
Instructor: STAFF  
**Description:** Examination of the role and function of the legal profession in our society and the principles, standards and rules governing ethics of the profession and their enforcement.

**LAW 6602 International Law**  
A-F only, 3 credit(s);  
Instructor: STAFF  
**Description:** The course is an introduction to public international law. It will examine the sources and history of the law of nations,
and concepts of jurisdiction and conflicts of jurisdiction of nation states. It will also provide a brief survey of the law of international organizations (including the United Nations) international economic law, international environmental law, international protection of human rights, dispute resolution, and the control of the use of force (including peacekeeping, war crimes, and related topics).

LAW 6603 Intellectual Property  
**A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;**  
**Instructor:** STAFF  
**Description:** This course provides a broad survey of the laws governing most areas of intellectual property including trademark, trade secret, copyright, computer chip protection and some patent law, as well as a survey of laws governing unethical and deceptive business practices. An examination of the extent and limits of federal preemption of state laws governing intellectual property rights forms a secondary (but important) part of the course. There are no prerequisites to this course. An interest in business practices and problems arising from rivalry among business firms will be helpful as will be an interest in stimuli to innovation in a competitive economy. Most of the material is case law, but the coursework will require that students become familiar with statutory provisions governing trademarks, copyrights, patents and computer chip protection.

LAW 6604 Family Law  
**A-F only, 3 credit(s);**  
**Instructor:** STAFF  
**Description:** Family Law. This course examines how the law regulates the creation and dissolution of family relationships, and the legal rights and responsibilities that family members have because of their familial status. These issues are examined in both modern and historical contexts, with particular emphasis on marriage. Topics include: interracial marriage and adoption, same-sex marriage and parenthood, marriage between blood relatives, polygamy and common law marriage, marriage and parenthood under the law of slavery, legitimacy and illegitimacy, surrogate motherhood, economic consequences of divorce, dissolution of nonmarital relationships, termination of parental rights, federal benefits and disabilities tied to family status, the prohibition on interspousal contracts for domestic services, the marital rape exemption, domestic violence, child abuse, and child custody and support.

LAW 6605 Health Law  
**A-F only, 3 credit(s);**  
**Instructor:** STAFF  
**Description:** This course is a comprehensive introduction to health law. We will investigate the organization of health care delivery in the United States; the nature of the physician-patient relationship; methods of quality control; responses to harm and error, including through medical malpractice litigation; problems of access to health care; and approaches to cost control. We will also analyze proposals for health care reform.

LAW 6606 Administrative Law  
**A-F only, 3 credit(s);**  
**Instructor:** STAFF  
**Description:** Law governing judicial review of the decisions of government officials and agencies. Decisions of federal and state officials subject to various kinds of judicial review. Some range from regulatory decisions by public service commissions governing the rates of suppliers of electricity and local telephone service to decisions governing entitlement to benefits under welfare programs. Some decisions have wide-ranging social and economic effects such as rulemaking decisions under the Clean Air Act while the impact of other decisions may be limited to a few individuals. The course is designed to assist motivated students to acquire the skills necessary to master a complex and difficult body of law.

LAW 6608 Trademarks  
**A-F only, 3 credit(s);**  
**Instructor:** STAFF  
**Description:** Student may contact the instructor or department for information.

LAW 6610 Unfair Competition  
**A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;**  
**Instructor:** STAFF  
**Description:** Unfair Competition (2 credits): This course provides an overview of the law of unfair competition. Likely topics include false advertising and product disparagement; tortious interference with contract and with prospective business relations; misappropriation of invention, idea law, and trade name law; the right of publicity; cyberspam; and federal preemption of state unfair competition laws. The course does not provide comprehensive coverage of antitrust, trademarks or trade dress, or consumer protection law.

LAW 6613 Copyright  
**A-F only, 3 credit(s);**  
**Instructor:** Cotter, Thomas Francis  
**Description:** This course provides a detailed introduction to the basic law of copyright - traditional copyright subject matter, the concept of originality and authorship, copyright transfers (and terminations of transfers), infringement, and fair use. The course coverage excludes patent law, except in brief overview, and only touches briefly upon related areas of intellectual property law, such as misappropriation, trade secret, and unfair competition law. Copyright law is now important well beyond the entertainment industry, although many of the decisions we study derive from that genre. (Humphrey Bogart, Cole Porter, George Harrison, J.D. Salinger, Superman, Mickey Mouse, and many other luminaries make cameo appearances in our cases.) Copyright (and copyright-like schemes) have increasingly become a necessary tool of the general practitioner as a result of the explosive growth in economic value of information-based products, like computer software and digital networks and databases. The lawyer ignorant of basic copyright principles will be increasingly handicapped in many areas of practice, such as negotiating technology transfers, drafting contractual rights, developing schemes of protection and privacy, distinguishing criminal from non-criminal behavior, and in litigation. But more important than all that, the cases and materials are lots of fun!

LAW 6615 Jurisprudence  
**A-F only, 3 credit(s);**  
**Instructor:** STAFF  
**Description:** This course will be a general survey course of American legal movements and conceptions of the law. The course will examine foundational legal questions: What is law, why are we obligated to follow laws, and when if ever, are we not? What is the Rule of Law? When if ever can we condemn a law as unjust and, if so, must we obey it? We will also examine how different legal movements have attempted to answer these questions from the beginnings of "legal science" and formalism; to the Legal Realists and the responses to them; to the more recent movement to unite law with moral philosophy; to Critical Legal Studies; and responses to the Critical Studies movement. We will compare and contrast these movements with basic conceptions of the law-positivism and natural rights.

LAW 6618 Trial Practice  
**A-F only, 3 credit(s); prereq Evidence;**  
**Instructor:** STAFF  
**Description:** Selected problems in litigation. Exercises in jury selection, introduction of evidence, expert testimony, direct and cross examination and impeachment of witnesses, opening statements and closing arguments.

LAW 6619 International Trade Law  
**A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;**  
**Instructor:** STAFF  
**Description:** This course is designed to familiarize the students with the regulatory system of international trade. Through the materials discussed in the course, focusing on the case law and jurisprudence of the WTO/GATT, the course is aimed at understanding the institutional framework of that system and the ways in which it functions. In addition the course deals with a
large number of substantive issues to be found on the agenda of international trade scholars and lawyers. While the course is focused on legal theory and doctrine of international trade, we will approach each and every topic from economic and social perspectives. Thus, the course is designed to follow a truly interdisciplinary tour of the relevant subject-matter. The issues covered in the course include: Theory and Policy of International Trade; The Legal Structure of the GATT/WTO System; Dispute Settlement; Tariff Bindings and Customs Law; Classification; Valuation and Rules of Origin; Quotas; The Most-Favored-Nation (MFN) Principle; Multilateralism and Regionalism; The National Treatment Clause, Discriminatory Taxes and Regulations; Government Procurement; Escape Clauses and Safeguards; Dumping and Antidumping Law; Subsidies and Countervailing Duties; Trade and Intellectual Property Rights; the TRIPS Agreement; Trade in Services: the GATS; Trade and the environment; and Technical Regulations and Standards: the SPS & TBT Agreements.

LAW 6625 Disability Law  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description: Explore legal issues relating to disability in the context of employment relationship. Principal focus on application of Americans with Disabilities Act to the workplace. Include the Family and Medical Leave Act and workers compensation system.

LAW 6627 International Tax  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
Instructor: STAFF  
Description: The course examines U.S. taxation of business and investment activities of foreign individuals and corporations in this country and those of domestic individuals and corporations that invest and conduct business abroad. Specific topics include income source rules, branch profits tax, foreign investments in the U.S. real estate, foreign tax credit, and U.S. tax treaties.

LAW 6628 Advanced Trial Practice  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
Instructor: STAFF  
Description: This course will be to help students learn to recognize and anticipate a large number of important evidentiary issues which can arise during a trial, and to help them learn how to deal with the issues when they arise. Students will perform direct and cross examinations, opening and closing statements and voir dire. Students will be expected to write brief motions in limine and short memoranda on evidentiary issues to learn to present concise persuasive memoranda to a court before and during trial.

LAW 6644 Law and Economics  
A-F only, 3 credit(s); prereq dept consent ;  
Instructor: STAFF  
Description: After an introduction to the methodology of law and economics, this course utilizes the standard tools of economic analysis for the study of law and legal institutions. After a review of some of the basic methods and concepts of economic analysis, the course will consider applications with special focus on: (i) sources of law and models of legal evolution; (ii) economics of property; (iii) economics of contracts; and (iv) economics of tort law. Requirements Completion of the Analytical Methods for Law? course, or prior training in economic and/or quantitative methods is recommended. The course grade will be assigned on the basis of an in-class multiple choice exam (50% of the grade) and a take-home essay problem (50%).

LAW 6701 Seminar: Advanced Criminal Law  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
Instructor: Tony, Michael H  
Description: Student may contact the instructor or department for information.

LAW 6800 Seminar: International Contracts  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description: The seminar presents students with a simulated international business transaction. Students will be asked to represent the businesses involved. They will be asked to inform themselves about the legal and practical problems involved in the transaction, and then to negotiate a contract dealing with those problems.

LAW 6801 Seminar: Death Penalty  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: This seminar focuses on the substantive law of capital punishment and on the procedural aspects of post-conviction proceedings. The course will include an examination of the history of death penalty jurisprudence, the Antiterrorism and Effective Death Penalty Act of 1996, habeas corpus, and state and federal death penalty statutes. A paper of 20 to 30 pages will be required. Guest speakers will attend the seminar from time to time throughout the semester. This seminar focuses on the substantive law of capital punishment and on the procedural aspects of post-conviction proceedings. The course will include an examination of the history of death penalty jurisprudence, the Antiterrorism and Effective Death Penalty Act of 1996, habeas corpus, and state and federal death penalty statutes. A paper of 20 to 30 pages will be required. Guest speakers will attend the seminar from time to time throughout the semester.

LAW 6808 Seminar: Street Law  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: This seminar engages law students in service to the community through teaching law to students in local schools. It also increases law student knowledge of the areas of law that are of interest to high school students such as criminal law and procedure, Constitutional law, and practical law (landlord tenant law, consumer law, family law & employment law) increases law student skills in explaining law to non lawyers and builds professionalism.

LAW 6817 Seminar: Advanced Estate Planning  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: Building on the student's knowledge of the underlying estate, gift, and income tax systems, this course will focus on the day to day life of the estate planning lawyer, from the initial client interview and analysis of financial data to the implementation of appropriate planning techniques based upon a client's situation and assets to preparation of an estate tax return (and everything in between).

LAW 6818 Seminar: White Collar Crimes  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: Overview of theory and practice of white collar litigation in the criminal arena. Survey the basic principles and theories underlying this area of law.

LAW 6822 Seminar: Legislative Process  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: This seminar will be studying "Legislative Process" with a definite hands on approach. Using selective readings, Supreme Court rulings on "Legislative Intent", MN Court rulings and legislative materials from MN and federal Legislatures as foundation. We will go to the MN State Capitol meet with House & Senate political leaders.

LAW 6827 Seminar: Women's International Human Rights  
A-F only, 2 credit(s);  
Instructor: STAFF  
Description: This seminar deals with the history of women's human rights, feminist perspectives on international law, the Women's Convention, reproductive rights, domestic violence, female genital mutilation, trafficking in women, economic rights,
women in development, women refugees, women's human right in the U.S., and the role of nongovernmental organizations.

LAW 6832 Seminar: Cyberspace and the Law
A-F only, 2-3 credit(s); max credits 3, 1 repeat allowed;
Instructor: STAFF
Description: This seminar examines the current and emerging legal issues related to technology. The course work will cover intellectual property, commercial, and personal legal issues affected by technology, as well as background on the impact of technology on the practice of law. Topics include licensing, software development and acquisitions contracts, trademark dilution, privacy, 1st Amendment issues, computer based evidence, online provider liability, and jurisdictional concerns.

LAW 6837 Seminar: Contract Drafting
A-F only, 2 credit(s);
Instructor: STAFF
Description: This seminar will take the contract principles that students learned in their first year and build upon them in a practical way. Students will review and revise contracts, draft sample provisions, draft contracts from "scratch" and discuss options for managing risk through effective drafting. This seminar will take the contract principles that students learned in their first year and build upon them in a practical way. Students will review and revise contracts, draft sample provisions, draft contracts from "scratch" and discuss options for managing risk through effective drafting. Prerequisites: None

LAW 6840 Seminar: Antitrust
A-F only, 2 credit(s);
Instructor: STAFF
Description: This seminar is intended to focus upon a series of major issues of current importance. During the first half of the semester, the seminar will take up a separate issue every one or two weeks. The issues will include (not necessarily in the following order):1. Antitrust analysis in the Chicago and post-Chicago schools.2. The antitrust law of the European Community examined from the perspective of a U.S. antitrust lawyer.3. Trading issues and their relation to antitrust law.4. Antitrust and the health care industry.5. Antitrust laws and the issues of intellectual property protection.6. The interface between antitrust law and labor law.7. The state-action doctrine, municipalities, and the antitrust laws.

LAW 6842 Seminar: Advanced Criminal Procedure
A-F only, 2 credit(s);
Instructor: STAFF
Description: This is a seminar in advanced criminal procedure. The course will allow students to consider more deliberatively some of the issues covered in the basic criminal procedure course and to experience the practical realities of practicing in the field of criminal law. By participating in mock pretrial hearings each week, we will explore a number of issues that typically arise during the course of a criminal prosecution. Course requirements include three written papers: two memoranda of law (5 pages each) and one report and recommendation (15-20 pages), and participation in three classroom simulations of evidentiary hearings.

LAW 6843 Seminar: Structured Finance
A-F only, 2 credit(s);
Instructor: STAFF
Description: In its most basic form, securitization involves pooling, structuring, and selling assets (i.e., predictable cash flows such as loans), derived from an originator -- a financial institution or other entity, to a special legal entity that is "bankruptcy remote." The seminar will begin by introducing the concept of securitizing (or monetizing) assets, will then review legal and accounting issues related to securitization and structured finance, will look at troubled securitization transactions including issues related to the bankruptcy of the originator, will address three independent case studies dealing with the first time issuer, the established company and industry, and the securitization of development loans, and will conclude by offering insights into the future of securitization. In its most basic form, securitization involves pooling, structuring, and selling assets (i.e., predictable cash flows such as loans), derived from an originator -- a financial institution or other entity, to a special legal entity that is "bankruptcy remote." The seminar will begin by introducing the concept of securitizing (or monetizing) assets, will then review legal and accounting issues related to securitization and structured finance, will look at troubled securitization transactions including issues related to the bankruptcy of the originator, will address three independent case studies dealing with the first time issuer, the established company and industry, and the securitization of development loans, and will conclude by offering insights into the future of securitization.

LAW 6844 Seminar: Real Estate Transactions
A-F only, 2 credit(s);
Instructor: STAFF
Description: This course is intended to be a "hands on" program which would expose the law students to the real world issues, documentation, and experiences that an attorney in the area of commercial real estate law would encounter. Much of the course material is similar to the type of training and education that is provided to young associates at law firms such as Kirkland & Ellis. There would be both an emphasis on the theory behind the provisions that are contained in various transaction documents as well as the realistic results of negotiation and their effect upon actual transactions. The course would require the students to do actual drafting and preparation of real estate documentation, participate in negotiation sessions between students with follow up discussion regarding the results of those negotiations, and case studies evaluating real estate investment. The students should finish the class with a well-rounded understanding of basic commercial real estate documentation and transactions. The class will also provide an excellent foundation for all transactional lawyers both real estate and otherwise. The major topic to be addressed during the semester include the following:1. Real Property Contracts and Conveyance Documents:2. Mortgages, Deeds of Trust and other Loan Documents:3. Leasing Documentation:4. Title Insurance Surveys:5. Real Estate Markets, Securitization and Development: and 6. Real Estate Investments and Analysis.

LAW 6846 Seminar: Philosophy of Punishment
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 6849 Seminar: Comparative Theories of Ownership
A-F only, 2 credit(s);
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 6850 Seminar: Criminal Punishment
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;
Instructor: STAFF
Description: This seminar addresses the history, underlying criminological theories, current practices, and proposals for reform of criminal punishment in America.

LAW 6851 Seminar: Advanced Legal Research
A-F only, 2 credit(s);
Instructor: STAFF
Description: Limited enrollment seminar (30 students) emphasizing legal research strategies and practical use of secondary source materials, administrative law materials, government documents and legal non-legal databases. Students are expected to complete short research problems and produce a research guide in a specialized area. Attendance is required. This course satisfies the senior writing requirement.

LAW 6852 Seminar: Financial Institutions
A-F only, 2 credit(s);
Instructor: STAFF
Description: During this seminar, students will be introduced to
various aspects of financial institutions law, including: Financial Holding Companies and new powers under the Gramm-Leach-Bliley Act of 1999 such as securities and insurance, history and themes of bank and thrift regulations, mega mergers and competition, lending and trust powers, branching, consumer regulation and the Community Reinvestment Act. Issues discussed will be consistent with the kinds of issues that banking lawyers would expect to see in a regulatory practice. As part of the coursework, each student will research and write a paper on a banking issue or issues of current concern.

LAW 6855 Seminar: Environmental Remediation and Redevelopment
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed; Instructor: STAFF
Description: Focusing on litigation, resolution and redevelopment, this seminar will provide an in-depth treatment of the law and practical realities of dealing with real property that has been subject to environmental contamination (also known as ?brownfields?). The course will first present the primary laws that govern contaminated property, namely the Superfund laws (CERCLA and, in Minnesota, MERLA) and the common law remedies available. Then we will consider the issues related to redeveloping brownfields property, including buying and selling such properties, obtaining liability assurance letters from the government, and funding options. This course is important for students interested in practicing in the areas of environmental law, land use, real estate law or real estate litigation or who are looking for a practical skills litigation course. Final Exam not a paper

LAW 6857 Corporate Tax
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed; Instructor: STAFF
Description: An introduction to Subchapter C of the Internal Revenue Code, the ?crown jewel? of the Tax Code, and the taxation of shareholders and corporations. The class will include an in-depth study of Section 351 and corporate formations; the capital structure of a corporation; nonliquidating distributions including dividends and Section 301; redemptions of corporate stock including Section 302; both taxable and tax free acquisitions, including Section 368 reorganizations; and, corporate divisions such as spin-offs under Section 355. The course will not address international transactions, but will attempt to emphasize real world, current corporate tax problems.

LAW 6864 Seminar: Ethics and Government
A-F only, 2 credit(s); Instructor: Painter, Richard W
Description: This seminar introduces students to federal government ethics law on a wide range of issues: financial conflicts of interest for government employees, financial reporting for senior employees, restrictions on dealing with former employers and other impartiality rules, gift rules, restrictions on negotiating for non government employment while in government service, prohibitions on representing back to the government after leaving government service, etc. We will also explore regulation of the lobbying industry and campaign finance, two topics closely integrated with government ethics. Can government ethics be significantly improved without substantial improvement in these areas as well? Students will take turns joining Professor Painter in leading weekly discussion of one or more specific topics. Students will also conduct independent research and write a paper (25-30 pages) on a relevant topic of their choice.

LAW 6865 Seminar: Law and Economics Workshop
A-F only, 2 credit(s);

Instructor: STAFF
Description: This seminar/workshop brings in leading scholars in one designated field to present papers. Each week, a scholar presents her paper; students are required to write short (1-3 page) critiques and discussion questions for each paper, and participate in the class discussions. In 2006, the field was Behavioral Law and Economics. In 2007, the field will be Corporate Governance

LAW 6867 Seminar: International and Foreign Legal Research
A-F only, 2 credit(s);
Instructor: STAFF
Description: Limited enrollment seminar (20 students) emphasizing legal research strategies and practical use of secondary source materials in foreign and international law. Students are expected to complete weekly research exercises and a final exam consisting of research problems. Attendance is required. This course does NOT satisfy the senior writing requirement

LAW 6868 Seminar: Business/Environmental Law
A-F only, 2 credit(s); prereq familiarity with CERCLA, corporate law, and personal property security recommended;
Instructor: STAFF
Description: Serious challenges face businesses and business people under the environmental laws. This seminar examines environmental issues and constraints in the context of typical business transactions (formation and realignment of business entities, buying and selling properties, lending and borrowing, producing and selling products, waste disposal and dealing with insolvency.) Our focus includes the legislative, administrative and judicial rules that allocate liability for damage to the environment and the lawyer's role in recognizing and minimizing client's liabilities. Creative deal structuring and contracts, emerging trends and useful tools are highlighted. A paper and class participation determines grading.

LAW 6876 Seminar: Digital Evidence
A-F only, 2 credit(s); Instructor: STAFF
Description: This seminar will cover the fast growing area of digital evidence and the legal issues that arise when digital evidence is investigated and used in criminal law and civil practice.

LAW 6880 Seminar: Election Law
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;
Instructor: STAFF
Description: This seminar will explore the law governing the right to vote in the United States. We will examine the way the law has shaped the structure of American political participation and we will consider alternative directions American democracy might take. We will begin with an overview of the restrictions on the franchise/residency requirements, discrimination on the basis of sex and race, and registration practices. Topics will include the individual right to vote, reapportionment, representation of minority interests in democratic bodies, preclearance procedures under the Voting Rights Act, political and racial gerrymandering, direct democracy, and alternative voting systems. If possible, we may also consider legal regulation of political parties and constitutional issues in campaign finance.

LAW 6885 Seminar: Advanced Environmental Law
A-F only, 2 credit(s); Instructor: STAFF
Description: This seminar will provide in-depth coverage of current issues in environmental law, with visiting lectures by environmental law specialists. Among the topics covered will be hazardous waste disposal, water pollution, and toxic torts. Students' papers will analyze current controversial issues in environmental law.

LAW 6888 Seminar: Learning the Law by Avoiding it in the Process
P-F only, 1 credit(s);

This information is accurate as of 6/9/2008 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: STAFF
description: This seminar the students decide from the facts of actual cases what the law should be. They are to use logic, instinct, experience, common sense, some unavoidable nonsense and all other mental and emotional processes that are the substance of the law and very much involved in its making. The only forbidden ingredient in the discussions is known or suspected law.

Law 6892 Seminar: Comparative Criminal Procedure
A-F only, 2-3 credits, max credits 1, repeat allowed; instructor: STAFF
description: Systems in several foreign countries for investigation, adjudication, and punishment of criminal violations. Focuses on French and German systems, with some attention to procedures in other common law countries such as Canada and Great Britain. Analysis of major similarities and differences between these, with emphasis on possibilities of basing American reforms on foreign practices.

Law 6894 Seminar: Sentencing Policy
A-F only, 3 credits; instructor: STAFF
description: This seminar includes a thorough examination of sentencing goals, structures (guidelines, mandatory penalties, indeterminate sentencing, etc.), alternatives, and consequences. A term paper is required.

Law 6897 Seminar: Game Theory
A-F only, 2 credits; instructor: STAFF
description: Game theory, the analysis of the logic of strategic behavior within interpersonal interactions, offers useful insights into how legal rules affect the way people behave. This seminar introduces what constitutes a game, payoffs, and basic solution concepts, such as the Nash Equilibrium. The seminar focuses on how various models, particularly the prisoner's dilemma, coordination games, and "chicken," can be used to study problems that arise in an array of legal fields, including but not limited to tort, contract, antitrust, bankruptcy, and environmental law. This seminar satisfies the requirement for substantial writing.

Law 6904 Equal Justice
A-F only, 3 credits; instructor: STAFF
description: This is a three-credit seminar. The class meets 2 hours per week. A written paper and field research are required. For examples of completed papers, please see: http://www.lsej.org/RTF1.cfm?pagename=Completed%20Works. Class enrollment is limited to 16 students (four students from each of the four area law schools). Because places in the class are very limited, students should enroll in the class only if they are quite certain that they will not drop it. Past offerings of this seminar have suffered from under-enrollment because students have dropped the class after it has started and after it was too late for those on the waiting list to be added.

Law 6913 Seminar: Tribal Courts in the United States, an Introduction to Indigenous Peoples Law
A-F only, 2 credits; instructor: Nelson, Debra R
description: Student may contact the instructor or department for information.

Law 6919 Seminar: Health Care Fraud and Abuse
A-F only, 2 credits; instructor: STAFF
description: Student may contact the instructor or department for information.

Law 6920 Seminar: Concept of the Person
A-F only, 2 credits; instructor: Blumenthal, Susanna
description: The 'reasonable man' is a familiar figure in legal doctrine, making appearances in a broad range of civil and criminal cases, and generating lively academic debate. But this seminar considers a more fundamental issue: what are the mental preconditions for being considered a legal person in the first place? To answer this deceptively simple question, we will examine cases and commentaries penned by judges and jurists, looking across time and doctrinal fields. This inquiry will be necessarily interdisciplinary in nature, because members of the legal profession have themselves drawn on a range of nonlegal texts: religious, philosophical, literary, and scientific?in their various constructions of the legal subject. The focus will be primarily on American legal culture, from 1800 to the present, and the doctrinal areas that will receive the greatest attention are contracts, wills, torts, and criminal law.
description: Students must circulate short reaction papers for 3 separate sessions. Each week 1 student will be responsible for writing a 4-6 page essay on the reading material and leading the week's discussion.

Law 7000 CL: Civil Practice
A-F only, 1-4 credits, max credits 4; instructor: STAFF
description: The Civil Practice Clinic provides a unique opportunity for students to gain both practical experience in the lawyering process and the satisfaction of helping real clients. The Clinic introduces students to the practice of lawyering through a combination of instructional methods. Classroom sessions, explore topics such as interviewing, negotiation, and motion practice. Simulated exercises allow students to apply classroom learning in a life-like setting. Finally, each student handles approximately three live cases involving topics such as family, administrative, human rights, tort, consumer and contract law. These cases provide student attorneys with the opportunity to participate in almost all aspects of the lawyering process including actual court and administrative hearings. The Clinic course is a two semester program, although the classroom portion is completed during the first semester. Students may begin the Civil Practice Clinic course in either semester of the second year or in fall semester of the third year. Those students beginning in spring semester can complete their second semester during either the summer or fall semester of the following academic year. Students earn a total of four credits which may be allocated between the two semesters. A significant advantage to Clinic enrollment during the second year of law school is eligibility for selection as a third year student director. Student directors act as "junior partners" in the Clinic law firm in terms of handling the more difficult clinic cases and supervising beginning student attorneys.

Law 7001 CL: Civil Practice Director
A-F only, 1-4 credits, max credits 4; prereq dept consent; instructor: STAFF
description: Student may contact the instructor or department for information.

Law 7003 Seminar: Student Legal Writing Instructor
A-F only, 2 credits, max credits 4; instructor: STAFF
description: Student may contact the instructor or department for information.

Law 7004 Seminar: Structured Study Group Instructors
P-F only, 2 credits, max credits 4; instructor: STAFF
description: Student may contact the instructor or department for information.

Law 7010 Clinic: Innocence
A-F only, 2-3 credits, max credits 6; instructor: STAFF
description: Students in the Innocence Project Clinic will work in conjunction with the Innocence Project of Minnesota. In the clinic, students will investigate claims of actual innocence being made by inmates in Minnesota, and North and South Dakota. Students begin working a claim by obtaining primary source material?police reports, forensic reports, court pleadings, transcripts, appellate briefs, and opinions. At that point, many

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students will have the opportunity to talk to the trial and appellate attorneys who had previously worked on the case. After reviewing all of the source material, if the case still appears to be a viable one, the students will often visit the inmate in prison giving them an opportunity to meet the inmate in person and question them about their claim. Students will also search for new evidence, and may visit crime scenes and interview witnesses. Students will be expected to prepare written summaries of what they do, and to present and discuss those experiences during class. Prerequisites: None

LAW 7015 Clinic: Worker Rights
A-F only, 2-4 credit(s), max credits 8;
Instructor: STAFF
Description: This two-semester course provides an introduction to practice in employment law with an emphasis on assisting low-wage workers such as temporary or day laborers and immigrant workers. Clinic participants work in collaboration with a non-profit Workers Center in the Twin Cities that is part of a nationwide movement advocating for and organizing low-wage and immigrant workers. These workers? cases typically involve wage and hour violations and national origin/race discrimination. Students work together with the Workers Center to consider a variety of methods of addressing the workplace problems, including work by non-lawyer advocates, organizing and collective action, and the legal services our clinic provides. Clinic students are involved in client intake in various community settings, particularly in the Latino, Somali and Hmong immigrant communities. In addition to direct client representation, field work may also include community legal education and working with non-legal advocates, labor unions, and labor organizers. The clinic attempts to have at least one complex case involving discrimination or retaliation on its docket during the year. The clinic has a three-hour class component in the first semester and a two-hour session in the second semester. Class work involves training in the core lawyering skills of interviewing, counseling, negotiation, discovery, motion practice and legal ethics in practice. Class work also includes substantive reading and discussions on the efficacy of traditional labor and employment law for meeting the workplace needs of marginalized workers and strategies for change. Classes also discuss new client interviews conducted both by our students and lay advocates, volunteers and interns at the Workers Center intake sites. Students do case rounds and discuss questions that come up in their case work and organizing. Prerequisites: None

LAW 7016 CL: Workers Rights Directors
A-F only, 2 credit(s), max credits 4;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7018 Intercollegiate Trial Team
A-F only, 2 credit(s); prereq Trial practice;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7020 CL: Special Education Law
A-F only, 2-3 credit(s), max credits 6;
Instructor: STAFF
Description: The Special Education Law Clinic offers advanced-standing law students the opportunity to work with and represent children with disabilities and their families. The law students, working under the supervision of an experienced school law attorney, assist with special education legal questions, reviewing special education documents, participating in conciliation conferences and mediation, working informally with schools to resolve disputes, and providing representation in state-level administrative complaints, hearings, and court actions. Law students may also participate in research projects and legislative and administrative proceedings. The Special Education Law Clinic is a two-semester program. It contains a classroom component mainly during the first semester. Throughout the program, law students will have a chance to meet and hear from professionals in the special education law community, including student advocates and attorneys, opposing counsel, school district staff, and state-level administrative decision makers.

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 7025 ABA Moot Court Competition Team
A-F only, 1-2 credit(s), max credits 3; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7026 ABA Moot Court Competition Director
A-F only, 1-2 credit(s), max credits 3; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7027 ABA Moot Court Competition Managing Director
A-F only, 1-2 credit(s), max credits 3; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7030 CL: Consumer Protection
A-F only, 3-4 credit(s), max credits 8;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7031 CL: Consumer Protection Directors
A-F only, 2 credit(s), max credits 4;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7035 Environmental Law 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 7036 Environmental Law Moot Court Director
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 7037 Environmental Law Moot Court Competition Team
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.
for information.

LAW 7038 Environmental Law Moot Court Managing Director
A-F only, 1-2 credit(s), max credits 3; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7045 Wagner Labor Law Moot Court
A-F only, 1-2 credit(s), max credits 2; prereq 3rd yr, dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7046 Wagner Labor Law Moot Court Director
A-F only, 1-4 credit(s), max credits 4; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7047 Wagner Moot Court Competition Team
A-F only, 1 credit(s), max credits 2;
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 7056 Maynard Pirsig Moot Court Director
A-F only, 1-4 credit(s), max credits 4; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7057 Maynard Pirsig Moot Court Research Director
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 7058 Maynard Pirsig Moot Court Managing Director
A-F only, 1 credit(s), max credits 2;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7065 National 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 7066 National Moot Court Director
A-F only, 1-4 credit(s), max credits 4; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7067 National Moot Court Administrative Director
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 7068 National Moot Court Competition Team
A-F only, 1 credit(s), max credits 2;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7075 International Moot Court
A-F only, 1-3 credit(s), max credits 3; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7076 International Moot Court Director
A-F only, 1-4 credit(s), max credits 4;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7077 International Moot Court Administrative Director
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 7078 International Moot Court Competition Team
A-F only, 1 credit(s), max credits 2;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7085 Intellectual Property 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 7086 Intellectual Property Moot Court Competition Team
A-F only, 1-2 credit(s), max credits 2;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7087 Intellectual Property Moot Court Director
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: The Consumer Bankruptcy Clinic offers students the opportunity to advise and represent individuals in serious financial difficulty. This two-semester, four-credit course includes a classroom component, preparing the students to counsel clients about consumer bankruptcy and discussing important portions of the Bankruptcy Code and Rules. The majority of the course involves actually representing clients in financial difficulty. This includes advising clients of their options, communicating with their creditors, and filing bankruptcy cases (either Chapter 7 or 13). Students will also have the opportunity to represent clients in adversary proceedings, including discovery and trial as well as settlement negotiations with both creditors and the U.S. Trustee. Occasionally, students represent individual creditors as well.

LAW 7093 CL: Bankruptcy Clinic Director
A-F only, 1-4 credit(s), max credits 4; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7094 Civil Rights Moot Court Administrative Director
A-F only, 1-2 credit(s), max credits 2;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7095 Civil Rights Moot Court
A-F only, 1-2 credit(s), max credits 3; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

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LAW 7096 Civil Rights Moot Court Director  
A-F only, 1-4 credit(s), max credits 4;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7097 Civil Rights Moot Court Competition Team  
A-F only, 1 credit(s), max credits 4, 4 repeats allowed;  
prereq dept consent;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7098 CL: Indian Child Welfare  
A-F only, 1-4 credit(s), max credits 4;  
Instructor: STAFF  
Description: The Indian Child Welfare Act Clinic is a two-semester clinic offered annually since 1996. The clinic gives students practical experience in handling family law and juvenile law cases with a special emphasis on the federal Indian Child Welfare Act (ICWA) passed by Congress in 1978. Weekly classroom sessions are held in conjunction with the Child Advocacy Clinic and cover such topics as interviewing, negotiation, and motion practice. Students handle two to three cases over two semesters. Cases are referred from the Indian Child Welfare Law Center and students work closely with Shannon Smith, the Executive Director of ICWA, and other Center staff attorneys. These cases are selected to provide students with a variety of substantive and procedural experiences. The clinic course is a two-semester program beginning in the fall semester. Students earn a total of four credits allocated over two semesters.

LAW 7099 CL: Indian Child Welfare Clinic Director  
A-F only, 1-4 credit(s), max credits 4;  
prereq dept consent;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7100 Law Review Editors  
P-F only, 3 credit(s), max credits 12, 4 repeats allowed;  
prereq instr consent;  
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 repeats allowed;  
prereq instr consent;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7246 CL: Housing  
A-F only, 3 credit(s);  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7247 CL: Housing Clinic Director  
A-F only, 1-4 credit(s), max credits 4, 1 repeat allowed;  
prereq dept consent;  
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 repeats allowed;  
Instructor: STAFF  
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 repeat 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 7501 CL: Misdemeanor Clinic Director  
A-F only, 1-4 credit(s), max credits 4;  
prereq dept consent;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7550 CL: Misdemeanor Prosecution  
A-F only, 2-3 credit(s), max credits 3, 1 repeat 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 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 clinic component of the clinic includes lectures, simulations and role playing. The lectures are on 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 7600 Minnesota Journal of Law, Science, and Technology  
P-F only, 1-6 credit(s), max credits 6, 4 repeats allowed;  
Instructor: STAFF  
Description: Student may contact the instructor or department for information.

LAW 7675 CL: Child Advocacy  
A-F only, 1-4 credit(s), max credits 4;  
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 7676 CL: Child Advocacy Director
A-F only, 1-4 credit(s), max credits 4; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7842 CL: Immigration
A-F only, 2-4 credit(s), max credits 4;
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 gain the clinic through the drop/add process in the Fall.

LAW 7843 CL: Immigration Clinic Director
A-F only, 1-4 credit(s), max credits 4; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

LAW 7850 CL: Public Interest Law
A-F only, 2 credit(s);
Instructor: STAFF
Description: Student may contact the instructor or department for information.

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 the 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 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 1 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).

LAW 7951 CL: Tax Clinic Director
A-F only, 1-4 credit(s), max credits 4; prereq dept consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

Learning and Academic Skills
104 Eddy Hall

LASK 1001 Mastering Skills for College Success
2 credit(s);
Instructor: STAFF
Description: If you're interested in learning strategies that will help you be a more efficient and effective student throughout the entire semester, consider enrolling in LASK 1001-Mastering Skills for College Success. Focus on topics such as: Developing Useful Study Habits - How much do you learn during a study session? If you think your habits may be more of a handicap than a help, explore options that fit your learning style and give your GPA a boost! Improving Reading Comprehension - Interested in getting more out of your textbook? Learn to improve your ability to answer questions from your reading assignments and how to use your text to prepare for exams; Managing Your Time - Want to find enough hours in the day for a good education and for friends, recreation, and a part-time job? Find out how to use your most valuable resource to your advantage; Improving Memory Skills - Having difficulty producing the right information at the right time? Learn tips for focusing your attention and steps you can take to aid your memory; Planning Exam Strategies - Want tips on how to handle those Style: 40% Lecture, 30% Discussion. Applied activities Grading: 30% reports/papers, 14% quizzes, 5% in-class presentation, 51% problem solving. Exam Format: Multiple choice, True/False, Essay
LASK 1101 Academic Refresher  
S-N only, 1 credit(s); prereq instr consent  
Instructor: STAFF  
Description: How are you going to react to the news that you're on academic probation? Some students quickly dismiss their probationary status with the remark that, "This really isn't a problem. I'll go back next semester, and things will be different." Some students are shocked by the news: "How could this happen to me? I'm an intelligent person!" Others respond by blaming the system: "How can anyone do well at the University of Minnesota? It's just too big and impersonal!" Still others feel embarrassed, wondering what people will think of them. A few even believe that nothing they do will make any difference and that their suspension is inevitable. Although these may be your first reactions, you can overcome them and move ahead. Recognize the news about you probation as a red flag--something is not going well. Consider joining other students interested in academic improvement and enroll in LASK 1101-Academic Success. Explore what makes learning in college difficult and discover why many students don't meet their own or the University's standards for achievement. Learn what to do when 1) Personal factors interfere with performance. 2) You're unhappy with the institution you're attending. 3) There are problems in your courses. 4) Your approach to study does not bring good results. 5) You're not really sure you want to be in college. Use what you find out to build a personal plan for success that gets you off probation and on with your education.

**Style:** LASK is an individualized study course. You meet weekly with an academic success consultant to develop and carry out a personal plan for improving your grades.

**Grading:** 12% special projects, 40% class participation, 48% other evaluation. Applied activities can promote personal, organizational and societal change. Case studies and action research will be emphasized. An important class product will be a framework for leadership and change in an innovation society. At the end of each class session, two or three learners will be responsible for summarizing and synthesizing the evening's conversation in order to add to the framework. Individual Learner Outcomes: 1. Able to define and analyze leadership from several perspectives 2. Able to identify and explain personal-level models of change 3. Able to identify and explain organizational-level models of change 4. Able to identify and explain societal-level models of change 5. Able to apply models of change to cases 6. Able to write a case study 7. Able to explain role of leadership and change in an innovation society 8. Able to practice action research 9. Able to apply systems thinking to a case 10. Better equipped to build learning communities Collective Learner Outcomes: 1. Build framework for leadership and change in an innovation society 2. Build learning community 3. Plan an innovation project

**Written Assignments:** 1. Reflections? Each learner is responsible for posting a written reflection on assigned readings five times during the semester on the course website. 2. Comments? Each learner is expected to post one thoughtful query (conversation starter) and four responses to other learners? queries five times during the semester. 3. Working Paper? 15-page case study or scholarly paper documenting action research related to the course. Also acceptable is a shorter teaching case and supporting notes and references.

**Grading:** 35% reports/papers, 25% reflection paper, 30% class participation, 10% other evaluation.

**LS 5100 Liberal Studies Seminar: Issues in Arts management Workshop**  
A-F only, 2 credit(s), max credits 24, 24 repeats allowed;  
prereq dept consent;  
Instructor: Wagner-Henry, Sherry Lynn  
Description: Student may contact the instructor or department for information.

**LS 5100 Liberal Studies Seminar: Visions and Visionaries**  
A-F only, 3 credit(s), max credits 24, 24 repeats allowed;  
prereq dept consent;  
Instructor: Daniel, Stephen Lewis  
Description: Student may contact the instructor or department for information.

**LS 5100 Liberal Studies Seminar: Americans at Work**  
A-F only, 3 credit(s), max credits 24, 24 repeats allowed;  
prereq dept consent;  
Instructor: Lloyd, Roseann  
Description: Student may contact the instructor or department for information.

**LS 5100 Liberal Studies Seminar: A Natural History of Religion**  
A-F only, 3 credit(s), max credits 24, 24 repeats allowed;  
prereq dept consent;  
Instructor: Shupe, David Arlin  
Description: Student may contact the instructor or department for information.

**LS 5100 Liberal Studies Seminar: Leading Innovation in 21st Century Minnesota**  
A-F only, 3 credit(s), max credits 24, 24 repeats allowed;  
prereq dept consent;  
Instructor: Harkins, Arthur M  
Description: Student may contact the instructor or department for information.

**LS 8001 Introduction to Interdisciplinary Inquiry**  
A-F only, 3 credit(s); prereq MLS student, dept consent;  
Instructor: Gonzalez PhD, Anita Marie  
Description: Student may contact the instructor or department for information.

**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;
LING 1701 Language and Society
4 credit(s); Meets CLE req of Cultural Diversity Theme;
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 3001 Introduction to Linguistics
4 credit(s); Credit will not be granted if credit has been received for: LING 3001H; Meets CLE req of Social Science Core;
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 3052V Honors: Thesis
A-F only, 3 credit(s); prerequisite 3051 credit will not be granted if credit has already been received for LING 3052H; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: A continuation of LING 3051H, with emphasis on writing final version of thesis. Audience: CLA Honors Linguistics majors.
Style: independent research, writing
Grading: 100% reports/papers.

LING 3601 Historical Linguistics
3 credit(s); prerequisite 3001 or instr consent; Credit will not be granted if credit has been received for: LING 5601;
Instructor: STAFF
Description: Languages change. How they do, why they do, and what we can learn form studying these changes are the central topics of this course. There will be weekly reading and assignments from the text, R.L. Trask's Historical Linguistics. By the end of the course you will not only know major tendencies of phonological, semantic, lexical, morphological, and syntactic change and some explanations for them, you will also understand some of the specifics of the history of English back to Proto-Indo-European.
Style: 50% Lecture, 30% Discussion. small group work and student presentations
Grading: 20% mid exam, 40% final exam, 15% quizzes, 5% in-class presentation, 5% class participation, 15% problem solving.

LING 4901W Major Project Seminar
S-N only, 3 credit(s); prerequisite Ling major, [jr or sr]; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Independent research and writing of senior paper. This may be an expansion and revision of a previously written course paper, or may be an entirely new project. Details are worked out in consultation with a faculty supervisor whose interests and expertise best match the student's project. Supervisor should be determined before the start of the semester if possible, or within the first week to allow maximum time for consultation and work on the paper. Target audience: Senior linguistics majors.
Style: Independent research and writing.
Grading: 100% reports/papers.
Exam Format: None

LING 5106 Field Methods in Linguistics II
4 credit(s); prerequisite [5105, grad major] or instr consent;
Instructor: Stenson,Nancy J
Description: Continues study of linguistic structures through work with a native speaker of the chosen language. Follow-up work on previous semester's papers, work with recorded texts and comparison of findings with those available in grammatical descriptions. Students must have completed Linguistics 5105 in the same academic year to enroll.
Style: 25% Discussion, 50% Laboratory, 25% Student Presentation, field work, data gathering
Grading: 60% reports/papers, 10% special projects, 30% class participation.
Exam Format: no exams

LING 5201 Syntactic Theory I
3 credit(s); prerequisite 3001 or 3001H or 5001 or instr consent;
Instructor: Soh,Hooi Ling
Description: This course is an introduction to the structure of sentences. We will consider how words are organized into phrases and sentences. We will explore how languages may differ in the way words are put together to form sentences and how they are the same. We will consider what the similarities and differences reveal about the human mind. The course will be conducted through lectures and discussions. Course requirements include regular assignments, a mid-term and a final. Target audience is undergraduate and graduate students in linguistics and related disciplines.
Style: 75% Lecture, 25% Discussion.
Grading: 30% mid exam, 40% final exam, 30% problem solving.
Exam Format: short answer

LING 5205 Semantics
3 credit(s); prerequisite 5201 or instr consent;
Instructor: Kac,Michael B
Description: This course is an introduction to formal techniques of semantic analysis. Although this is not a course in logic, many of the key concepts in formal semantics originate in logic and grow out of an attempt to clarify them and give them a rigorous formulation as they apply to "formalized languages", that is,
languages specially designed for purposes of logical analysis. There is now an ongoing cross-disciplinary project involving investigators from linguistics, philosophy, computer science and other fields seeking to apply similar methods to the analysis of natural language; the course presents some of the seminal results of this project.

**Style:** 100% Lecture.

**Grading:** 33% final exam, 67% problem solving.

**Exam Format:** Essay

**LING 5206 Linguistic Pragmatics**

3 credit(s); prereq 5201 or intrs consent;  
Instructor: Gundel, Jeannette K  
Description: Student may contact the instructor or department for information.

**LING 5462 Field Research in Spoken Language**

3 credit(s); prereq 3001 or 3001H or 5001 or intrs consent;  
Credit will not be granted if credit has been received for: COMM 5462;  
Instructor: Szatrowski, Polly Ellen  
Description: In this course we will investigate language in its "natural habitat," everyday talk, and investigate how participants use talk, gaze, gesture, body orientation and back channel utterances (huhh, eh, etc.) to make sense of one another conduct in real-life social interaction. We will investigate how co-participants use these resources to give attention, indicate listenership, and coordinate turn changes. We will also examine how speakers use prosody (changes in pitch and voice quality), laughter, gesture, body posture and timing to involve their listeners, complement/supplement their verbal messages, achieve co-tellership, negotiate opinions, and embody performances of emotion/ assessment. The course will include hands-on practice in transcription of verbal and nonverbal behavior (hand, head, eye, facial expression and body movement) using computer software to analyze intonation and pause, and frame-by-frame video analysis. We will also practice identifying and characterizing gestures (iconic, metaphoric, delictic, and beat) and analyze their role in introducing referents, information presentation, topic structuring, repair, word searches, etc. Our data will come from conversations in a variety of languages, including English, Japanese, Ilokano, and German.  
Style: 40% Lecture, 30% Discussion.  
Grading: 30% class participation, 40% other evaluation. Major paper, abstract, presentation; 30% Written homework and data collection

**LING 5601 Historical Linguistics**

3 credit(s); prereq 3001 or 3011H or 5001; Credit will not be granted if credit has been received for: LING 3601;  
Instructor: Harkness, John Underwood  
Description: Student may contact the instructor or department for information.

**LING 5900 Topics in Linguistics**

1-4 credit(s), max credits 12, 3 repeats allowed;  
Instructor: Szatrowski, Polly Ellen  
Description: Student may contact the instructor or department for information.

**LING 5900 Topics in Linguistics**

3 credit(s), max credits 12, 3 repeats allowed;  
Instructor: Shelden, Amy  
Description: It is estimated that half of the people in world speak more than one language. What is the quality and texture of a life like when lived in more than one language? How does language contribute to our sense of identity and sense of community? We will read essays and books by and about people who are polylingual or bidialectal. Some had to learn English because their families fled their homeland. Some are American born. One writer chose to immerse herself in another language after her father's death. Each writer struggles to fit into two or more worlds of language and hence culture. Each searches for self-unification and meaning in multiple worlds. Their languages or dialects have been a source of self-exploration, self-disruption, and self-reintegration. We will explore the gifts and heartaches of living within and across other languages or dialects. Whether monolingual or polylingual, we will learn about own linguistic histories, and the multilingual world we live in. We will also consider linguistic multiplicity in the U.S. and the world. We will become more aware of the language ideologies that shape our thinking as an individual and as a nation.

**LING 5993 Directed Study**

1-3 credit(s), max credits 10, 10 repeats allowed; prereq instr consent, dept consent, college consent;  
Instructor: Karvonnen, Daniel  
Description: Student may contact the instructor or department for information.

**LING 5993 Directed Study**

1-3 credit(s), max credits 10, 10 repeats 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 repeats allowed; prereq instr consent, dept consent, college consent;  
Instructor: Gundel, Jeannette K  
Description: Student may contact the instructor or department for information.

**LING 5993 Directed Study**

1-3 credit(s), max credits 10, 10 repeats allowed; prereq instr consent, dept consent, college consent;  
Instructor: Stenson, Nancy J  
Description: Student may contact the instructor or department for information.

**LING 8005 Research Paper Workshop**

S-N only, 3 credit(s), max credits 12, 4 repeats allowed; prereq [5105, 5202, 5205, 5302] or [instr consent, grad ling major];  
Instructor: Gundel, Jeannette K  
Description: Student may contact the instructor or department for information.

**LING 8210 Seminar in Syntax**

3 credit(s), max credits 9, 3 repeats allowed; prereq 5202, 5205 or instr 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 repeats allowed; prereq instr consent;  
Instructor: Kac, Michael B  
Description: Student may contact the instructor or department for information.

**LING 8991 Independent Study**

1-4 credit(s), max credits 15, 15 repeats allowed; prereq instr consent;  
Instructor: Gundel, Jeannette K  
Description: Student may contact the instructor or department for information.

**LING 8991 Independent Study**

1-4 credit(s), max credits 15, 15 repeats allowed; prereq instr consent;  
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 repeats allowed; prereq instr consent;  
Instructor: Soh, Hooi Ling
Management
3-353 CarlSmgmt

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 exposure to the role of entrepreneurs in society and potential career paths, (2) Develop individual self-assessment of entrepreneurial interests and capabilities, (3) Examine the new venture creation process and key challenges of launching and growing new businesses, (4) Understand what skills are needed to become an entrepreneur, and (5) Begin to develop the foundational skills required to successfully embark on an entrepreneurial career, such as problem-solving under uncertainty, decision-making with incomplete information, opportunity identification, communication, innovation processes, sales, negotiations, recruitment and staffing, and leadership.

MGMT 3010 Introduction to Entrepreneurship
A-F only, 4 credit(s);
Instructor: Spruth, Steve
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 exposure to the role of entrepreneurs in society and potential career paths 2) Develop individual self-assessment of entrepreneurial interests and capabilities 3) Examine the new venture creation process and key challenges of launching and growing new businesses 4) Understand what skills are needed to become an entrepreneur 5) Begin to develop the foundational skills required to successfully embark on an entrepreneurial career, such as problem-solving under uncertainty, decision-making with incomplete information, communication, innovation processes, sales, negotiations, recruitment and staffing, and leadership.

MGMT 3033V Honors: Business Communication
A-F only, 3 credit(s); prereq 60 cr, CSOM upper div honors, permission granted for other honors students by UHP credit will not be granted if credit already received for: BA 3033W or 3033V; Meets CLE req of Writing Intensive;
Instructor: Littlefield, Holly A
Description: This section of BA 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 service or 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, flyers, 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 prospective employers, taking part in community activities, working with diverse groups of people, and becoming aware of community issues and concerns.

Style: 20% Lecture, 80% Discussion.
Grading: 15% mid exam, 45% projects/papers, 40% in-class presentation, 10% class participation.

MGMT 3033W Business Communication
A-F only, 3 credit(s); prereq Fr composition, CSOM upper-div, at least 60 cr credit will not be granted if credit already received for: BA 3033W or 3033V; Meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

MGMT 3033W Business Communication
A-F only, 3 credit(s); prereq Fr composition, CSOM upper-div, at least 60 cr credit will not be granted if credit already received for: BA 3033W or 3033V; Meets CLE req of Writing Intensive;
Instructor: Littlefield, Holly A
Description: BA 3033--Business Communications fosters and enhances students' cognitive abilities and communication skills. It helps students become credible professionals who can effectively contribute to organizations and communities and successfully employ a variety of communications strategies and skills. BA 3033, Business Communications combines writing and speaking into a single, semester-long course required of all Carlson School undergraduates. This course gives students 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, team-work 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: 15% mid exam, 40% reports/papers, 40% in-class presentation, 10% laboratory evaluation.

MGMT 3033W Business Communication
A-F only, 3 credit(s); prereq Fr composition, CSOM upper-div, at least 60 cr credit will not be granted if credit already received for: BA 3033W or 3033V; Meets CLE req of Writing Intensive;
Instructor: Syverson MA, JoAnn
Description: BA 3033--Business Communications fosters and enhances students' cognitive abilities and communication skills. It helps students become credible professionals who can effectively contribute to organizations and communities and successfully employ a variety of communications strategies and skills. BA 3033, Business Communications combines writing and...
speaking into a single, semester-long course required of all Carlson School undergraduates. This course gives students 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, team-work 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, 3 credit(s); prereq 3001, CSOM upper div, at least 60 cr; Meets CLE req of International Perspect Theme; Instructor: Vaaler, Paul Martin Description: Student may contact the instructor or department for information.

MGMT 3040 Understanding the International Environment of Firms: International Business
A-F only, 3 credit(s); prereq 3001, CSOM upper div, at least 60 cr; Meets CLE req of International Perspect Theme; Instructor: Singh, Gurneeta Vasudeva Description: Student may contact the instructor or department for information.

MGMT 3040H Honors: Understanding the International Environment of Firms, International Business
A-F only, 3 credit(s); prereq 3001, honors student, at least 60 cr; Instructor: Singh, Gurneeta Vasudeva Description: Student may contact the instructor or department for information.

MGMT 3070 Topics in Management
A-F only, 2-4 credit(s), max credits 12, 3 repeats allowed; prereq At least 60 cr [completed or in progress]; Instructor: Stavig, John David Description: Student may contact the instructor or department for information.

MGMT 3070 Topics in Management
A-F only, 4 credit(s), max credits 12, 3 repeats allowed; prereq At least 60 cr [completed or in progress]; Instructor: Abrams, Lori J Description: MGMT Negotiation is the art and science of securing agreements between two or more parties who are interdependent and who are seeking to maximize their own outcomes. The central issues of this course deal with understanding the behavior of individuals, groups and organizations in the context of competitive situations. This course is designed to complement the technical and diagnostic skills learned in other courses at the Carlson School. A basic premise of this course is that while an individual needs analytical skills to discover optimal solutions to problems, a broad array of negotiations skills are needed to get these accepted and implemented. This course will allow participants the opportunity to develop these skills experientially and to understand negotiation in useful analytical frameworks. As such, considerable emphasis will be placed on simulations role-playing and cases. The following is a list of course objectives: (1) To gain a broad understanding of the central concepts in negotiation, (2) To develop confidence in negotiation as an effective means for resolving conflicts in organizations, and (3) To improve your ability to analyze the behavior and motives of individuals, groups, and organization in settings that have both competitive and cooperative elements.

MGMT 4002 Managerial Psychology
A-F only, 4 credit(s); Instructor: Leroy, Sophie 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; Meets CLE req of Writing Intensive; Instructor: Hernandez, Exequiel 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: Fine, Alan Raymond Description: Student may contact the instructor or department for information.

MGMT 4050 Management of Innovation and Change
A-F only, 2 credit(s); prereq [3001 or 3010], CSOM upper div credit will not be granted if credit received for: 5050; Instructor: Bechara, John Philippe Description: Student may contact the instructor or department for information.

MGMT 6004 Negotiation Strategies
A-F only, 2 credit(s); prereq MBA student; Instructor: Abrams, Lori J Description: Student may contact the instructor or department for information.

MGMT 6035 Complex and Cross-Cultural Negotiations
A-F only, 2 credit(s); Instructor: Abrams, Lori J Description: Student may contact the instructor or department for information.

MGMT 6050 Management of Innovation and Change
A-F only, 2 credit(s); prereq MBA student; Instructor: Van de Ven, Andrew Henry Description: Student may contact the instructor or department for information.

MGMT 6110 Managing People and Organizations
A-F only, 2 credit(s); prereq MBA student; Instructor: Leroy, Sophie Description: Student may contact the instructor or department for information.

MGMT 6305 The International Environment of Business
A-F only, 2 credit(s); Instructor: Singh, Gurneeta Vasudeva Description: Student may contact the instructor or department for information.

MGMT 6402 Integrative Leadership: From Theory to Practice
A-F only, 2 credit(s); prereq CSOM or Humphrey or UM masters student; Instructor: Vaaler, Paul Martin Description: Student may contact the instructor or department for information.

MGMT 8101 Theory Building and Research Design
4 credit(s); prereq Business admin PhD student or instr consent; Instructor: Van de Ven, Andrew Henry 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, 0-2 credit(s), max credits 2, 1 repeat allowed;
Instructor: Froggatt,Kirk
Description: MOT 4001 is designed to provide scientists and engineers with a working knowledge of the broader business context within which technical ideas are translated into solutions that address customer needs and deliver economic value to a firm. The course will broaden students' business knowledge and personal leadership abilities, enabling technical professionals to increase their business impact and career success. This two-credit course will build practical knowledge and skill in personal leadership and professionalism, effective communication, business fundamentals, and the process of innovation (i.e., transforming technical ideas into value creating solutions). The course content and the experiential learning approach are designed to reflect the real world requirements and challenges technical professionals need to master in order to thrive in collaborative, project team environments. The course instructor has spent 20 years working for Silicon Valley-based technology companies including HP, Silicon Graphics, Yahoo!, and Agilent Technologies. He brings relevant experience, academic rigor, and a passion for applied learning and development to the classroom.
Style: 40% Lecture, 30% Discussion, 30% Small Group Activities.

MOT 8213 Macroenvironment of Technology
A-F only, 2 credit(s); prereq Grad MOT major;
Instructor: Marcus,Alfred A
Description: Student may contact the instructor or department for information.

MOT 8232 Managing Technological Innovation
A-F only, 2 credit(s);
Instructor: Carlson,Lockwood
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: Amin,Massoud
Description: Student may contact the instructor or department for information.

MOT 8940 Managing Intellectual Property
S-N only, 0.5-1.5 credit(s), max credits 1.5, 1 repeat allowed;
Instructor: Burk,Dan
Description: Student may contact the instructor or department for information.

MOT 8950 International Management of Technology Project
A-F only, 1.5 credit(s); prereq MOT grad student;
Instructor: Amin,Massoud
Description: Student may contact the instructor or department for information.

Manufacturing Technology

101 Wesbrook Hall

MT 3001 Introduction to Manufacturing in a Global Economy
A-F only, 3 credit(s);
Instructor: McConaghy,Ed
Description: Explores how the global business economy has transformed the manufacturing sector. Overview of key manufacturing elements: systems, processes, quality, engineering, process improvement, supply-chain management, product and systems innovation, regulatory affairs, and technology use to manage change.

MT 3111 Elements of Microelectronic Manufacturing Laboratory
A-F only, 1 credit(s); prereq Concurrent registration is required (or allowed) in 3111;
Instructor: Citubzar, Gregory
Description: Lab covers the basic process steps to make top-down micro and nano scaled structures. Specific topics include oxidation, photolithography, electron beam lithography, chemical vapor deposition, etching, rapid thermal annealing, wet chemical etching, and plasma etching. Students will also build a test chip containing a variety of micro mechanical structure as part of the lab. The final lab will involve an evaluation of the operation of these structures (11 four-hour labs).

MT 3121 Thin Films Deposition
A-F only, 3 credit(s); prereq Completion of [physics, chemistry, [college algebra or precalculus]] with a grade of at least C-, 45 sem cr;
Instructor: Tran,Nang
Description: This course will give students the opportunity to know and work with thin film metals and oxides. Exposure to photo lithography and methods of deposition the HV and UHV range including vacuum evaporation, sputtering methods and chemical vapor deposition. (Prereq: MECT 2293)

MT 3131 Introduction to Materials Characterization
A-F only, 4 credit(s); prereq Completion of physics, chemistry, [college algebra or precalculus] with grade of at least C-, 45 sem cr;
Instructor: Hafner, Robert
Description: Introduction to four basic types of characterization methods: electron beam microscopy, optical microscopy and FTIR, proximal probe techniques, and x-ray/ion beam scattering. A review of the underlying principles will be presented for each technique and the information that can be reliably obtained from each will be discussed.

MT 3141 Principles and Applications of Bionanotechnology
A-F only, 4 credit(s); prereq Completion of physics, chemistry, [college algebra or precalculus] with grade of at least C-, 45 sem cr;
Instructor: Wang, Ping
Description: Intro to protein, lipid and nucleic biochemistry. Biomolecule design, production using recombinant DNA technology & use in nanodevices and nano-materials.
Applications of biological molecules in biotechnology: effects of Brownian motion; biomolecular surfaces forces; biomolecule structure alterations due to molecular interaction; self-assembly.

MT 3142 Nanoparticle Technology and Engineering Laboratory
A-F only, 1 credit(s); prereq Completion of physics, chemistry, [college algebra or precalculus] with grade of at least C-, 45 sem cr;
Instructor: Wang,Jing
Description: Overview of the challenges and available tools for measuring the properties of nanoerosols. Topics include optical particle counters, condensation particle counters, differential mobility analysis, electrosprays, atomizers, and single particle mass spectrometers

MT 4001 Manufacturing Cost Accounting, Analysis, and Control
A-F only, 3 credit(s); prereq Financial accounting, 45 cr;
Instructor: Vickman,Thomas M
Description: Expands on student's lower division work in financial accounting. Emphasis is on using accounting data to make day-to-day management decisions such as: determining cost-volume-profit relationships, measuring various costs, evaluating capital budgets and the acceptability of investment projects, constructing profit plans, evaluating budget variances, and analyzing activity costing and standard costs.

MT 4011 Design of Manufacturing Systems and Simulation
A-F only, 3 credit(s);
Instructor: King,William Tyler
Description: Design and analysis of different types of manufacturing systems such as flow lines, assembly systems, cellular manufacturing, flexible manufacturing, and automated systems; control issues in manufacturing systems such as facility layout, scheduling, batch sizing, group technology, and bottleneck management. A variety of modeling and analysis tools are used, including computer simulation and operations. Lab as part of course. Minimum requirements for working with the ProModel simulation software used in this course include a PC with Pentium processor running Windows 95 or better, with at least 16 MB RAM. For recommended system requirements, please see the ProModel Web site

MT 4012 Manufacturing Processes and Technology
A-F only, 3 credit(s); prereq Physics I, chemistry, intro to calculus, 45 cr;
Instructor: Edmonson,Dave
Description: A description and modeling of many commonly used manufacturing processes. Covers process descriptions, process capabilities and performance, process models relating process parameters to part and process characteristics and process control. Fundamentals aspects of a large number of manufacturing processes offered by studying selected classes of different kinds of processes.

MT 4501 Global Manufacturing Enterprise
A-F only, 3 credit(s); prereq MT major or minor or certificate or instr consent ;
Instructor: King,William Tyler
Description: Capstone project. Develop a part or product from the requirement definition through prototype fabrication. Including: definition of product requirements, development of product and tooling design, analysis, definition of fabrication process, development of quality assurance plan, fabrication of prototype, inspection and testing.

Marketing
3-140 CarlSmgmt

MKTG 3001 Principles of Marketing
A-F only, 3 credit(s); prereq ECON 1101;
Instructor: Upton,Kevin John
Description: INTERNATIONAL VERSION: This new offering is an exciting way for undergraduate students to fulfill Carlson School's Marketing core (MKTG 3001) with study in both the U.S. and France, taught entirely in English. It is especially useful for students seeking an introductory study experience in the European Union. The course is offered in collaboration with the Bordeaux Business School in Bordeaux, France, and will be taught in three locations -- at the Carlson School, in Paris, and in Bordeaux. How to Apply: Complete an application by December 1. Applications available at: www.carlsonschool.umn.edu/undergraduatesudyabroad

MKTG 3001 Principles of Marketing
A-F only, 3 credit(s); prereq ECON 1101;
Instructor: Mueller,Wayne G
Description: The student will learn the basic marketing concepts that drive corporate marketing strategy and will apply them through use classroom discussion, team presentations, guest speakers and video discussion techniques. Key Twin Cities Marketing Executives will make guest appearances throughout the semester to share their career experiences, techniques and ideas for marketing success in a challenging global corporate world. Students will learn, present and apply marketing principles and their ideas in front of the class. Being able to present and apply ideas are a key ingredient to your future success in business. This is a "no penalty zone" for the student to learn and try their individually learned marketing techniques to establish their own style of applying marketing principles. Many of the reading materials and weekly chapter readings will be supplemented with lecture/discussion sessions from the instructor's experiences in the current business world. The goal is to make the text relevant to current business conditions.

MTG 4020 Advanced Logistics and Supply Chain Management
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed; prereq 3001, 3010;
Instructor: Seltzer,Jon
Description: Student may contact the instructor or department for information.

MKTG 4030 Selling and Sales Management
A-F only, 4 credit(s); prereq 3001, 3010;
Instructor: Mueller,Wayne G
Description: Student may contact the instructor or department for information.

MKTG 4040 Buyer Behavior
A-F only, 4 credit(s); prereq 3001, 3010;
Instructor: Meyers-Levy,Joan
Description: Student may contact the instructor or department for information.

MKTG 4050 Integrated Marketing Communications
A-F only, 4 credit(s); prereq 3001, 3010;
Instructor: Griskevicius, Vladas
Description: Student may contact the instructor or department for information.

MKTG 4070 International Marketing
A-F only, 2 credit(s); prereq 3001;
Instructor: Upton,Kevin John
Description: Student may contact the instructor or department for information.

MKTG 4080 Marketing Strategy
A-F only, 4 credit(s); prereq 3001, 3010;

This information is accurate as of 6/9/2008 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.

This information is accurate as of 6/9/2008 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 2008.

MBA 6210 Marketing Management
A-F only, 2 credit(s); prereq MBA student; Instructor: Huchendorf,Steven Craig
Description: This course focuses on how a firm manages its resources and capabilities to maximize customer value and firm profit. Students will learn about several key concepts that form the basis for marketing strategy, as well as the frameworks and tools useful in developing a successful marketing strategy. The topics discussed will include the benefits of being market oriented; the principles of segmentation, targeting, and positioning; product life cycle dynamics; the structural analysis of industries and markets; and the basis of a sustainable competitive advantage. The course will be taught largely using the case method to allow students to step into the shoes of decision-makers in real organizations. The cases are designed to improve the student’s ability to analyze a firm’s situation, summarize the critical issues, and justify a particular course of action. Additionally, several short homework assignments have been designed to illustrate specific marketing concepts to the students. The target audience for this course is upper-class undergraduate marketing majors.
Style: 40% Lecture, 60% Discussion. 6 short homework assignments (should require less than an hour each)
Grading: 25% mid exam, 30% reports/papers, 5% quizzes, 25% class participation, 15% problem solving.
Exam Format: short answer

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 6082 Brand Management A-F only, 4 credit(s); prereq MBA 6210;
Instructor: John,Deborah Roeder
Description: Student may contact the instructor or department for information.

MKTG 6082 Brand Management A-F only, 4 credit(s); prereq MBA 6210;
Instructor: Mueller,Wayne G
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: Mueller,Wayne G
Description: Student may contact the instructor or department for information.

MKTG 8841 Seminar: Theory and Methods of Measurement
4 credit(s); prereq MBA 6210 or equiv, business admin PhD student or instr consent;
Instructor: John,George
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: 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 6210 Marketing Management A-F only, 2 credit(s); prereq MBA student;
Instructor: Huchendorf,Steven Craig
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 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: Forbes,Daniel P
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: Snyder,Steven J
Description: Student may contact the instructor or department for information.

MBA 6501 Carlson Funds Enterprise: Growth
2 credit(s), max credits 6, 3 repeats allowed; prereq [Apply to or accepted] in spring-A of 1st year to begin in spring-B; recommended are [emph in finance mgmt, 6031, Acct 6100, Acct 6160];
Instructor: STAFF
Description: Student may contact the instructor or department for information.

MBA 6502 Carlson Funds Enterprise: Fixed Income
2 credit(s), max credits 6, 3 repeats allowed; prereq [Apply to or accepted] in spring-A of 1st year to begin in spring-B; recommended are [emph in finance mgmt, 6031, Acct 6100, Acct 6160];
Instructor: STAFF
Description: Student may contact the instructor or department for information.

MBA 6503 Carlson Ventures Enterprise
OPT No Aud, 2 credit(s), max credits 6, 3 repeats allowed; prereq Full-time MBA student, approved application, interview;
Instructor: Sapienza,Harry Jack
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: 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.

Master of Business Administration 2-210 CarlSMgmt

Master of Business Taxation 3-108 Carlson School of Management

MBT 5150 Current Financial Accounting Issues A-F only, 2 credit(s); prereq ACCT 2050, MBT student;
Instructor: Sellner,Mark A
Description: Student may contact the instructor or department for information.

MBT 5230 Corporate Taxation I A-F only, 2 credit(s); prereq ACCT 5135, MBT student;
### MATS 2001 Introduction to the Science of Engineering Materials

- **Code**: MATS 2001
- **Title**: Introduction to the Science of Engineering Materials
- **Credit**: A-F only, 3 credit(s)
- **Prerequisite**: CHEM 1021, MATH 1272, PHYS 1301W, IT student
- **Instructor**: Sellner, Mark A
- **Description**: Student may contact the instructor or department for information.

### MBT 5326 Mergers and Acquisitions II

- **Credit**: A-F only, 2 credit(s)
- **Instructor**: Sellner, Mark A
- **Description**: Student may contact the instructor or department for information.

### MBT 5333 Tax Aspects of Consolidated Returns

- **Credit**: A-F only, 2 credit(s); prerequisite 5230, MBT student
- **Instructor**: McCormick, James Phillip
- **Description**: Student may contact the instructor or department for information.

### MBT 5350 Wealth Transfer I (Estates and Gifts)

- **Credit**: A-F only, 2 credit(s); prerequisite ACCT 5135, MBT student
- **Instructor**: Skonnord, Eric Jenal
- **Description**: Student may contact the instructor or department for information.

### MBT 5353 Income Taxation of Fiduciaries

- **Credit**: A-F only, 2 credit(s); prerequisite Acct 5135, MBT student
- **Instructor**: Bedosky, John Richard
- **Description**: Student may contact the instructor or department for information.

### MBT 5356 Taxation of Compensation Arrangements

- **Credit**: A-F only, 2 credit(s); prerequisite Acct 5135, MBT student
- **Instructor**: Clark, Keith H
- **Description**: Student may contact the instructor or department for information.

### MBT 5360 State and Local Taxation

- **Credit**: A-F only, 2 credit(s); prerequisite Acct 5135, MBT student
- **Instructor**: Busacker, Dale Herman
- **Description**: Student may contact the instructor or department for information.

### MBT 5363 Taxation of Executive Compensation

- **Credit**: A-F only, 2 credit(s); prerequisite ACCT 5135, MBT Student
- **Instructor**: Clark, Keith H
- **Description**: Student may contact the instructor or department for information.

### MBT 5373 Taxation of Inventories

- **Credit**: A-F only, 2 credit(s); prerequisite ACCT 5135, MBT student
- **Instructor**: Sehman, Thomas Robert
- **Description**: Student may contact the instructor or department for information.

### MBT 5420 Current Topics in Taxation

- **Credit**: A-F only, 1-4 credit(s), max credits 4, 1 repeat allowed
- **Instructor**: Sellner, Mark A
- **Description**: Student may contact the instructor or department for information.

### MBT 5500 Business, Government, and Economic Tax Policy

- **Credit**: A-F only, 4 credit(s); prerequisite ACct 5135, MBT student
- **Instructor**: Wilensky, Alan Jay
- **Description**: Student may contact the instructor or department for information.

### MATS 2002 Introduction to the Science of Engineering Materials Laboratory

- **Credit**: A-F only, 1 credit(s); prerequisite 2001 or Concurrent registration is required (or allowed) in 2001
- **Instructor**: Schott, Jeffrey H
- **Description**: Student may contact the instructor or department for information.

### MATS 2002 Introduction to the Science of Engineering Materials Laboratory

- **Credit**: A-F only, 1 credit(s); prerequisite 2001 or Concurrent registration is required (or allowed) in 2001
- **Instructor**: Norris, David J
- **Description**: Student may contact the instructor or department for information.

### MATS 3011 Introduction to Materials Science and Engineering

- **Credit**: 3 credit(s); prerequisite Chem 1021, Math 1272 or 1372, Phys 1302
- **Instructor**: Holmes, Russell James
- **Description**: Student may contact the instructor or department for information.

### MATS 3041 Industrial Assignment I

- **Credit**: A-F only, 2 credit(s); prerequisite 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 3851W Materials Properties Lab

- **Credit**: A-F only, 2 credit(s); prerequisite [3011, MatS upper div] or dept consent; Meets CLE req of Writing Intensive
- **Instructor**: Leighton, Chris
- **Description**: Student may contact the instructor or department for information.

### MATS 4002 Mass Transport and Kinetics

- **Credit**: A-F only, 4 credit(s); prerequisite CE 3101, upper div MatS
- **Instructor**: Shores, David A
- **Description**: This course is intended for 3rd year Materials Science undergraduates and science graduate students. The course content is focused on the mechanisms of mass transport in solids, esp. solid state diffusion in metals, sense conductors and ceramics, and on kinetic of processes occurring in solids, esp. rates of transports in ceramics and metals, and rates of gas-solid chemical reactions. Source materials are chapters in several books and paper from scientific journals.
- **Style**: 75% Lecture, 25% Discussion.
- **Grading**: 30% mid exam, 45% quizzes, 25% problem solving.
- **Exam Format**: Problem solving.

### MATS 4041 Industrial Assignment II

- **Credit**: A-F only, 2 credit(s); prerequisite 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

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**Materials Science**

**151 Amundson Hall**

**MATS 2001 Introduction to the Science of Engineering Materials**

- **Credit**: A-F only, 3 credit(s); prerequisite CHEM 1021, MATH 1272, PHYS 1301W, IT student
- **Instructor**: Sellner, Mark A
- **Description**: Student may contact the instructor or department for information.
MATS 4214 Polymers
A-F only, 3 credit(s); prereq [3011, [4001 or CHEN 4101], [upper div MatS or ChEn]] or instr consent;
Instructor: Bates,Frank S
Description: Polymer synthesis, characterization, structure property relations. Polymerization types: free radical, condensation, ionic, coordination polymerization kinetics and reactors; molecular weight distribution and its characteristics; network formation; swelling. Structure and morphology of the crystalline and amorphous state. Crystallization kinetics, vitrification and the glass transition, rubber elasticity, viscoelasticity, mechanical properties, failure, permeability, optical and electrical properties, polymer composites. On successful completion of this course, students will understand how most polymers are made and how they are characterized. They will be able to design simple synthetic schemes to produce a polymer of desired size and microstructure. They will understand how size and microstructure control properties. They will be able to select polymeric materials to meet specific property requirements.
Style: 95% Lecture, 5% Discussion.
Grading: 40% mid exam, 35% final exam, 25% problem solving.

MATS 4301W Materials Processing
A-F only, 4 credit(s); prereq 4212, [4214 or Concurrent registration is required (or allowed) in 4214]; Meets CLE req of Writing Intensive;
Instructor: Francis,Lorraine F
Description: Student may contact the instructor or department for information.

MATS 4400 Senior Design Project
A-F only, 3 credit(s); prereq Sr, [MatS major or ChEn major];
Instructor: Frisbie,C Daniel
Description: Student may contact the instructor or department for information.

MATS 4402 Senior Design Thesis II
A-F only, 2 credit(s); prereq 4401;
Instructor: Frisbie,C Daniel
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 repeats 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 repeats 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 repeats 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 5223W Polymer Laboratory
2 credit(s); prereq 4214 or 5221 or ChEn 4214 or Chem 5221 or 8221 or instr consent; Credit will not be granted if credit has been received for: CHEM 4223W; Meets CLE req of Writing Intensive;
Instructor: Hillmyer,Marc Andrew
Description: 20% Lecture, 80% Laboratory. 
Grading: 80% reports/papers, 20% written homework, 20% laboratory evaluation.

MATS 8003 Electronic Properties
A-F only, 3 credit(s); prereq instr consent;
Instructor: Wentzcovitch,Renata M
Description: Student may contact the instructor or department for information.

MATS 8004 Mechanical Properties
A-F only, 3 credit(s);
Instructor: Gerberich,William W
Description: Student may contact the instructor or department for information.

MATS 8211 Physical Chemistry of Polymers
3 credit(s); prereq Undergrad physical chem or instr consent; Credit will not be granted if credit has been received for: CHEM 8211;
Instructor: Lodge,Timothy P
Description: Student may contact the instructor or department for information.

MATH 1038 College Algebra and Probability Submodule
A-F only, 1 credit(s); prereq 1051 or 1151 or 1155;
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 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. Students should choose a section of Math 1031 they wish to attend before contacting the department.

MATH 1039 College Algebra and Probability Submodule
A-F only, 1 credit(s); prereq 1051 or 1151 or 1155;
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 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. Students should choose a section of Math 1031 they wish to attend before contacting the department.

MATH 4653 Elementary Probability
4 credit(s); prereq [2263 or 2374 or 2573]; [2283 or 2574 or 3283] recommended;
Instructor: Gray,Lawrence F
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]; [2263 or 2574 or 3283] recommended; Credit will not be granted if credit has been received for Stat 4101, Stat 5101.
Instructor: Bobkov,Sergey Germanovich
Description: Student may contact the instructor or department for information.

MATH 5654 Prediction and Filtering
4 credit(s); prereq 5651 or Stat 5101;
Instructor: Fristedt,Bert E
Description: This course is one of three courses designed to follow Math 5651/Stat 5101, the "two" courses Math 5651 & Stat 5101 being the same course. The other two courses designed to follow Stat 5101/Math 5651 are Math 5652, Introduction to Stochastic Processes, and Stat 5102, Theory of Statistics II. The courses Math 5654, Math 5652 and Stat 5102 are all distinct from each other, and taking one of them does not preclude taking the other one or two for credit. Math 5654 is concerned with signal processing when the underlying stochastic processes are stationary or Markov. An issue is that of recovering and extrapolating the intended signal when the received signal also contains noise. The intended audience consists of undergraduate mathematics majors who are interested in applying mathematics in this direction and both graduate and undergraduate students in fields where signal processing plays a significant role. Students who have had a probability course elsewhere might wonder whether that course will be sufficient to stand in lieu of the prerequisite Math 5651/Stat 5101. An approximate guide on this issue is: "yes" if that probability course has a multivariable calculus prerequisite and "no" if not.
Style: 90% Lecture, 10% Discussion.
Grading: 48% mid exam, 36% final exam. 16% problem solving.
Exam Format: Problem-solving and proofs, both of which often require essay-type responses

MATH 8001 Preparation for College Teaching
S-N only, 1 credit(s), max credits 3, 1 repeat allowed; prereq Work for this course will end past the end of the term. A K grade will be assigned to indicate that the course is still in progress; math grad student in good standing or instr consent;
Instructor: Keynes,Harvey Bayard
Description: Student may contact the instructor or department for information.

MATH 8660 Topics in Probability
1-3 credit(s), max credits 12, 12 repeats allowed;
Instructor: Fristedt,Bert E
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: Monson,Debra Sue
Description: Student may contact the instructor or department for information.

MTHE 3102 Mathematics and Pedagogy for Elementary Teachers II
A-F only, 4 credit(s); prereq 3101, college algebra;
Instructor: Wyberg,Terrence R
Description: Student may contact the instructor or department for information.

MTHE 5031 Geometric Structures in School Mathematics
3 credit(s); prereq Enrollment in math initial licensure program;

Instructor: Clarkson,Lesa M
Description: Student may contact the instructor or department for information.

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 5366 Technology-Assisted Mathematics Instruction
3 credit(s);
Instructor: Wyberg,Terrence R
Description: Student may contact the instructor or department for information.

MTHE 5696 Student Teaching in Mathematics
S-N only, 1-8 credit(s), max credits 8, 1 repeat allowed; prereq ME/initial licensure student or instr consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

MTHE 5993 Directed Studies in Mathematics Education
S-N only, 2 credit(s), max credits 3, 1 repeat allowed; prereq Math ed ME 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 advisor as part of MTHE program.

Mechanical Engineering
125 Mechanical Engineering

ME 3041 Industrial Assignment I
A-F only, 2 credit(s); prereq ME upper div, enrolled in ME co-op program;
Instructor: Marple,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: Chase,Thomas Richard
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: Chase,Thomas Richard
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: 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: Cui,Tianhong  
Description: Student may contact the instructor or department for information.

**ME 3281 System Dynamics and Control**  
A-F only, 4 credit(s); prereq AEM 2021, [Math 2243 or Math 2373], ME upper div;  
Instructor: Sun,Zongxuan  
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, IT student;  
Instructor: Ravi,Lavanya  
Description: Student may contact the instructor or department for information.

**ME 3333 Thermal Sciences II**  
A-F only, 3 credit(s); prereq 3332, [4031W or Concurrent registration is required (or allowed) in 4031W], ME upper div; credit will not be granted if credit already received for: ME 3322;  
Instructor: Hubel,Allison  
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: Dahl,Scott D  
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: Marpie,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: Marpie,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: 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: This course focuses on the engineering design principles of heating, ventilating and air conditioning systems used in buildings. Students are divided into teams and then design the complete HVAC system for an actual mid-sized building located in the Twin Cities area to include specifying the central equipment and laying out and sizing the ductwork and hydronic piping systems. Teams are assigned to nearby participating HVAC design firms who provide workstations, software and design mentoring assistance for the students. In addition to accepted design practice as promulgated by ASHRAE, the students learn about building codes and standards and evolving concepts such as green buildings, LEED certification, and alternative energy options including wind and solar energy. Upon completion of this course, students should be able to design the entire mechanical system for a building using state-of-the-art technology. Design procedures are reviewed for heat exchangers, cooling towers, hydronic systems and air handling systems. Students design the HVAC system for an actual commercial building. The course is targeted to senior undergraduate and beginning engineering graduate students.  
Style: 30% Lecture, 15% Discussion, 50% Small Group Activities, 5% Student Presentation.  
Grading: 35% mid exam, 50% special projects, 15% written homework. Final design project: a) written report and drawings (25%), b) oral presentation (25%)  
Exam Format: Problem solving.

**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: Stelson,Kim A  
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: Stelson,Kim A  
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 or graduate student;  
Instructor: Pui,David Y  
Description: Student may contact the instructor or department for information.
ME 5221 Computer-Assisted Product Realization
A-F only, 4 credit(s); prereq 3221, AEM 3031, CSci 1113, MatS 2001;
Instructor: Klamecki,Barney Eugene
Description: This class covers the complete product realization process from product concept design, to engineering design, to manufacturing process design, to evaluations of the designs, to product production, to product testing and evaluation. The course is structured around a project pursued by small groups of students. The overall goal of the project is the re-design of an existing injection molded consumer product so that significantly "better" performance is obtained (recently, a plastic shelving system). The course activities are defining a measure of product performance, evaluating the current product, setting a specified level for performance, re-designing the product using analytical and numerical analyses, designing the injection molding process for production of the product or a model-size version of the product if it is large, predicting expected product and process behavior using quantitative engineering models, producing and testing the product and comparing process and product behaviors to predictions. Professional quality computer-based tools are used in engineering analysis (ANSYS finite element program), detailed engineering design (Pro/ENGINEER design program), process design (Moldflow finite element molding simulation program) and in mold design and mold machining programming (Pro/MOLD, Pro/MANUFACTURE). Industrial quality computer-controlled milling and machining machines are used for mold and product production. The project outcomes are a product design that has been evaluated by producing and testing the product and a process design that has been evaluated by comparing predicted and measured process behavior and part characteristics. Details of a previous offering of the course are available on the course web site listed below.
Style: 50% Lecture, 50% Laboratory. Lecture time includes lecture, discussion and project progress presentation
Grading: 50% special projects, 50% laboratory evaluation. 50% of grade based on group presentations and final report, 50% based on individual lab reports and class participation
Exam Format: No examinations, 3-4 progress presentations during the semester, a group final presentation and report and 3-4 individual lab reports.

ME 5241 Computer-Aided Engineering
A-F only, 4 credit(s); prereq IT upper div or grad, 3222, CSci 1113 or equiv;
Instructor: Kelso, Frank M
Description: Student may contact the instructor or department for information.

ME 5248 Vibration Engineering
4 credit(s); prereq IT upper div or grad, 3281;
Instructor: Kelso, Frank M
Description: Student may contact the instructor or department for information.

ME 5286 Robotics
A-F only, 4 credit(s); prereq [3281 or equiv], [upper div ME or AEM or CSci or grad student];
Instructor: Moreillas, Vassilios
Description: The course deals with four major components: robot manipulators (more commonly known as the robot arm), robot vehicles, image processing and embedded computing. Lecture topics fall into two of these categories - the manipulator and image processing. Topics covered under robot manipulators include the mathematics of a 6 degree of freedom machine operating in a 3D world and the control of robot position, velocity, path and force. These topics require knowledge about their forward and inverse kinematics, the mathematics of homogeneous transformations and coordinate frames, the Jacobian and velocity control, task programming, computational issues related to robot control, determining path trajectories, reaction forces, manipulator dynamics and control. Topics under computer vision include image sensors, digitization, preprocessing, thresholding, edge detection, segmentation, feature extraction, classification, frequency domain techniques, and 3D analysis. Main project: Design and implement a guidance controller for a truck. Skeleton code is provided. The goal is to write the remaining code needed to guide a virtual truck along a specified path on a given road. There will also be several smaller projects dealing with the computer vision part of the course. Prerequisite: ME3281 System Dynamics and Control, or equivalent. Recommended: Background in C programming. However, it is possible to pick up what you need in the first few weeks of class.
Style: 50% Lecture, 10% Discussion.
Grading: 50% special projects, 50% quizzes.
Exam Format: Solve problems (open book, open notes).

ME 5312 Solar Thermal Technologies
A-F only, 4 credit(s); prereq [3333, IT upper Div] or grad student;
Instructor: Davidson, Jane H
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); prereq IT upper div or grad student, 3321, 3322;
Instructor: Sparrow, Ephraim M
Description: Student may contact the instructor or department for information.

ME 5351 Computational Heat Transfer
A-F only, 4 credit(s); prereq IT upper div or grad student, 3322;
Instructor: Garrick, Sean Clifford
Description: Numerical solution of heat conduction and analogous physical processes. Development and use of a computer program to solve complex problems involving steady and unsteady heat conduction, fully developed flow and heat transfer in ducts, flow in porous media, and other special applications. Use of the computer program for design and optimization.
Style: 70% Lecture, 30% Discussion.
Grading: 80% special projects, 5% in-class presentation, 15% problem solving.

ME 5461 Internal Combustion Engines
A-F only, 4 credit(s); prereq IT upper div or grad student, C or better in 3322 or 3324;
Instructor: Kittelson, David Burnell
Description: Student may contact the instructor or department for information.

ME 5462 Gas Turbines
A-F only, 4 credit(s); prereq IT upper div or grad student, 3321, concurrent enrollment 3322;
Instructor: Hoxie, Alison Behrens
Description: Student may contact the instructor or department for information.

ME 5666 Modern Thermodynamics
A-F only, 4 credit(s); prereq 3331 or equiv;
Instructor: Dumitraca, Traian
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.
ME 8113 Advanced Aerosol/Particle Engineering
A-F only, 3 credit(s); max credits 4, 1 repeat allowed; prereq IT grad student or instr consent;
Instructor: Girshick, Steven L
Description: Student may contact the instructor or department for information.

ME 8222 New Product Design and Business Development II
A-F only, 4 credit(s); prereq 8221; Credit will not be granted if credit has been received for: BMEN 8402;
Instructor: Adams, Carl Robert
Description: Student may contact the instructor or department for information.

ME 8229 Finite Element Methods for Computational Mechanics: Transient/Dynamic Problems
A-F only, 4 credit(s); prereq 5228 or equiv, 5341, AEM 3031, CSci 1113;
Instructor: Tamma, Kumar K
Description: Student may contact the instructor or department for information.

ME 8243 Topics in Design
A-F only, 1-4 credit(s), max credits 12, 3 repeats allowed;
Instructor: Durfee, William K
Description: Student may contact the instructor or department for information.

ME 8253 Computational Nanomechanics
3 credit(s); prereq IT grad student;
Instructor: Dumitrica, Traian
Description: Student may contact the instructor or department for information.

ME 8268 Properties and Fabrication of Plastics and Composites
A-F only, 4 credit(s); prereq 3221, AEM 3031, MatS 2001;
Instructor: Ramalingam, Subbiah
Description: Student may contact the instructor or department for information.

ME 8281 Advanced Control System Design
A-F only, 4 credit(s); prereq 5281;
Instructor: Li, Perry Y
Description: Student may contact the instructor or department for information.

ME 8342 Convection
A-F only, 3 credit(s); prereq Grad level course on fundamentals of fluid mechanics that has a substantial component on viscous flows or instr consent;
Instructor: Simon, Terrence W
Description: Student may contact the instructor or department for information.

ME 8362 Introduction to Plasma Technology
A-F only, 3 credit(s); prereq 8361;
Instructor: Heberlein, Joachim Viktor R
Description: Student may contact the instructor or department for information.

ME 8390 Advanced Topics in the Thermal Sciences
A-F only, 1 credit(s), max credits 6, 6 repeats allowed;
Instructor: Sparrow, Ephraim M
Description: Student may contact the instructor or department for information.

ME 8390 Advanced Topics in the Thermal Sciences
A-F only, 1 credit(s), max credits 6, 6 repeats allowed;
Instructor: Sparrow, Ephraim M
Description: Student may contact the instructor or department for information.

Medical Industry Leadership Institute

MILI 6235 Pharmaceutical Industry: Business and Policy
A-F only, 2 credit(s); prereq MBA student;
Instructor: Connor, Robert Alan
Description: Student may contact the instructor or department for information.

MILI 6589 Medical Technology Evaluation and Market Research
A-F only, 2 credit(s); prereq MBA student;
Instructor: Parente, Stephen T
Description: Student may contact the instructor or department for information.

MILI 6726 Medical Device Industry: Business and Public Policy
A-F only, 3 credit(s); prereq MBA student;
Instructor: Connor, Robert Alan
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: Parente, Stephen T
Description: Student may contact the instructor or department for information.

MILI 6991 Anatomy and Physiology for Managers
A-F only, 2 credit(s);
Instructor: Hertzberg, Jeffrey K
Description: Student may contact the instructor or department for information.

MILI 6995 University Medical Industry Enterprise
OPT No Aud, 2 credit(s), max credits 6, 3 repeats allowed; prereq Grad student;
instructor: STAFF
Description: Student may contact the instructor or department for information.
MILI 6999 Independent Study
A-F only, 1-8 credit(s), max credits 8, 1 repeat allowed;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

Medicinal Chemistry
8-101 Weaver-Densford Hall

MEDC 5710 General Principles of Medicinal Chemistry
A-F only, 2 credit(s); prereq MedC grad student or instr consent;
Instructor: Hanna, Patrick E.
Description: Student may contact the instructor or department for information.

MEDC 8100 Medicinal Chemistry Seminar
1 credit(s), max credits 6, 6 repeats allowed; prereq Grad major or instr consent;
Instructor: Abul-Haj, Yusuf J
Description: Student may contact the instructor or department for information.

MEDC 8760 Design of Peptidomimetics
A-F only, 2 credit(s); prereq 5600 or instr consent;
Instructor: Johnson, Rodney L.
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 repeats 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 repeats allowed; prereq Grad med chem major or instr consent;
Instructor: Wagner, Carston R
Description: Student may contact the instructor or department for information.

Medieval Studies
131 Nolte Center

MEST 3610 Topics in Medieval Studies
3-4 credit(s), max credits 24, 8 repeats allowed;
Instructor: Bachrach, Bernard S
Description: Student may contact the instructor or department for information.

MEST 3610 Topics in Medieval Studies
3-4 credit(s), max credits 24, 8 repeats allowed;
Instructor: Phillips Jr, William D
Description: Student may contact the instructor or department for information.

MEST 3610 Topics in Medieval Studies
3-4 credit(s), max credits 24, 8 repeats allowed;
Instructor: Lower, Michael T
Description: Far from being a dark and dismal age when nothing happened and life was “nasty, brutish, and short,” the Middle Ages was a time of rapid and sometimes disconcerting social, cultural, and political change. The central and later medieval periods (c.1050-c.1500) witnessed a revolution in agricultural and commercial techniques, a movement away from and then a new embracing of city life, a flowering of notions of chivalry and courtly love, an aggressive expansion outward, an experimentation with representative political institutions, and a profound engagement with new forms of religious life. By the end of the Middle Ages, a distinctly European culture had emerged. Some of the chief legacies of this culture - parliamentary institutions, common law, the university, and the state - are significant because they are still a feature of western society today. But our primary aim will be to engage with medieval people in their own right. Topics will include: heresy and inquisition; Abelard and Heloise; the Crusades; medieval castles and cathedrals; the Black Death; the Peasants Revolt; the Hundred Years War; Joan of Arc; the Italian Renaissance; and the voyages of exploration. The course is suitable for majors, non-majors, and transfer students alike.

Grading: 20% midterm exam, 30% final exam, 30% reports/papers, 20% other evaluation, informal writing assignments
Exam Format: short answer and essay

MEST 5610 Advanced Topics in Medieval Studies
3-4 credit(s), max credits 15, 5 repeats allowed; prereq One yr work in some area of Middle Ages, reading knowledge of appropriate language, instr consent;
Instructor: Lower, Michael T
Description: Student may contact the instructor or department for information.

MEST 5610 Advanced Topics in Medieval Studies
3-4 credit(s), max credits 15, 5 repeats allowed; prereq One yr work in some area of Middle Ages, reading knowledge of appropriate language, instr consent;
Instructor: Lower, Michael T
Description: Student may contact the instructor or department for information.

MEST 8110 Seminar in Medieval Studies
A-F only, 3-4 credit(s), max credits 48, 16 repeats allowed; prereq Appropriate language, instr consent;
Instructor: Wakefield, Ray M
Description: In this graduate seminar the Department of German, Scandinavian and Dutch offers a unique “two for one special”: two great, medieval Germanic stories (Tristan by Gottfried von Strassburg and The Saga of Tristram and Isond), two medieval languages (Middle High German and Old Norse), two instructors — and only one day a week! The course is designed so that students only need reading knowledge of one of these languages, and qualified undergraduates are also encouraged to participate. We will look at such diverse topics as translating, narrative structure and cultural themes, character portrayal, and audience. The course will include sessions on medieval illustrations of the story, Wagner’s Tristan, and a 20th-Century movie version. For further information see Ray Wakefield (wakef001@tc.umn.edu) or Kaaren Grimstad (grims001@tc.umn.edu). Interested undergraduates need a “magic number” to register, available from the Department or from the instructors.

MEST 8110 Seminar in Medieval Studies
A-F only, 3-4 credit(s), max credits 48, 16 repeats allowed; prereq Appropriate languages, instr consent;
Instructor: Lower, Michael T
Description: Student may contact the instructor or department for information.

MEST 8110 Seminar in Medieval Studies
A-F only, 3-4 credit(s), max credits 48, 16 repeats allowed; prereq Appropriate languages, instr consent;
Instructor: Ilnitchi Currie, Gabriela
Description: Student may contact the instructor or department for information.

Microbial Engineering
240 Gortner Lab
MICE 5309 Biocatalysis and Biodegradation
3 credit(s); prereq chemistry through organic chemistry; knowledge of word processing, e-mail, access to World Wide Web, access to college-level science library recommended; Credit will not be granted if credit has been received for: BIOC 5309; Instructor: Wackett, Lawrence Philip Description: Student may contact the instructor or department for information.

MICE 5355 Advanced Fermentation and Biocatalysis Laboratory
S-N only, 1 credit(s); [prereq [3301 or BIOL 3301], [grad student in microbial engineering or upper-div major in [microbiology or chem engineering or biochemistry]], instr consent] Instructor: von Keitz, Marc G Description: Student may contact the instructor or department for information.

Microbiology
1460 Mayo (Box 196)

MICB 3301 Biology of Microorganisms
A-F only, 5 credit(s); prereq [BIOL 1002 or BIOL 1009 or BIOL 2002], CHEM 2301, Concurrent registration is required (or allowed) in CHEM 2302; Credit will not be granted if credit has been received for: VBS 2032; Instructor: Mohr, Christian D Description: Course covers the taxonomy, physiology, biochemistry, pathogenesis, immunology, and ecology of microbes including fungi, bacteria, and viruses. Molecular structure in relation to microbial function and disease is also covered. Course includes a laboratory. Course will utilize WEBCT VISTA. Course texts: MicB 3301 Laboratory Manual, Microbiology-Prescott, Harley and Klein, McGraw-Hill, 6th Edition. Target audience: undergraduate science majors (including Biology, Biochemistry, Microbiology, Cell Biology, and Genetics). Style: 60% Lecture, 40% Laboratory. Grading: 60% other evaluation, based on four exams; 40% based on laboratory quizzes, reports and performance Exam Format: Short answer, fill in the blank, true/false, multiple choice

MICB 4121 Microbial Ecology and Applied Microbiology
A-F only, 3 credit(s); prereq 3301; Credit will not be granted if credit has been received for: ES 4121; Instructor: Sadowsky, Michael Jay Description: Evolution/structure of microbial communities. Abiotic and biotic factors influencing presence and persistence of microorganisms in ecosystems. Population structure and interactions of populations and communities within ecosystems. Quantitative/habitat ecology. Biogeochemical cycling of elements and microbe-metal interactions. Molecular microbial ecology, gene transfer in the environment. Molecular phylogeny of microorganisms. Molecular technologies to examine structure and function of microbes in soils and water. Application of microbes in agriculture and industries. Use of microbes for the production of commodity chemicals, drugs, and other high-value products.

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 3031 or Bioc 4331]; Instructor: Molitor, Thomas William 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, and 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. A major component of the class is cooperative learning through group problem sets. A research paper covering the following areas is required by graduate students. Undergraduate and adult student participants will have the option of submitting a paper for extra credit. A problem to be completed by each group will be assigned weekly. Three tests will be given at the designated dates. Tests will be taken individually; then by group. An average of the individual group will represent the individual's score for each test. Textbook used is: Immunology, Kuby, 4th Ed. W.H. Freeman and Company, 2000. See Course Website for further information.

Style: 60% Lecture, 20% Discussion, group learning Grading: 20% mid exam, 20% final exam, 20% reports/papers, 20% quizzes, 20% problem solving. Exam Format: essay and short answer

MICB 4141W Biology, Genetics, and Pathogenesis of Viruses: Writing Intensive
4 credit(s); prereq [BIOC 3021, BIOL 4003], [3301 or BIOL 4004], 4311 or instr consent; Credit will not be granted if credit has been received for: MICB 4171; Meets CLE req of Writing Intensive; Instructor: Schiff, Leslie Ann Description: MicB 4141W is a writing intensive virology course aimed at upper level undergraduates. The lecture portion of the course is identical to MicB 4171. Microbiology majors have priority for the seats in 4141W. The course is a principle-based (not virus-by-virus) discussion of virology, emphasizing the common reactions that must be completed by all viruses for successful replication within a host cell and survival and spread within a host population. The molecular basis of alternative replication cycles, the interactions of viruses with host organisms, and how these lead to disease will be presented with examples drawn from a set of representative animal viruses. To achieve course objectives, lectures are combined with active learning techniques and activities. These should accommodate students with distinct learning styles. Students will be asked to write informally (on index cards or in response to WebCT prompts). 4141W and 4171 have an integral WebCT site on which lecture outlines, study guides, info updates and learning prompts are posted. Students use the site to participate by asking and answering questions and extending course discussions. 4141W students will also participate in ~8 mandatory small group meetings, focused on writing in the discipline. These meetings will be arranged on the first day of class.

Style: 60% Lecture, 23% Discussion, 15% Small Group Activities, 2% Guest Speakers. Active learning, discussion; Two time options will be presented for the small writing group meetings.

Grading: 25% final exam, 35% reports/papers, 10% written homework, 20% additional semester exams, 10% class participation. Percentages above reflect the + participation grading option. Students can opt out of in-class participation, in which case midterms are worth 30%. Students cannot opt out of participation in writing groups/exercises. Bonus quizzes are worth 5%

Exam Format: Multiple choice, short answer, short essay. Study guides preview many of the possible essay questions.

MICB 4151 Molecular and Genetic Bases for Microbial Diseases
3 credit(s); prereq [3301, [4131 or Concurrent registration is required (or allowed) in 4131], [BIOC 3021 or Bioc 4331]; [BIOL 4003 or GCD 3022] recommended; Instructor: Cleary, Paul Patrick Description: MicB 4151 will explore the biochemical and genetic basis for bacterial and fungal infections. The first few weeks will focus on emerging infections and the evolution of microbial pathogens. Remaining lectures and exercises will investigate the action of microbial toxins, the importance of nutrition and surface molecules as determinants of host-tissue specificity of infection.
and mechanisms by which microbes avoid or counter human immunological defenses. The course is targeted at advanced biology undergraduates and graduate students in microbiology, veterinary medicine, food microbiology and other professional biology related programs. 40% of the class are microbiology majors. Knowledge of basic microbiology, immunology and biochemistry is important. The text book is required. Grades will be based on three examinations, team research paper and an individual research paper. The final grade is not based on curved. Style: 80% Lecture, 20% Discussion. Grading: 62% mid exam, 32% reports/papers, 1% in-class presentation, 5% problem solving. Exam Format: Short essay

**MICB 4171 Biology, Genetics, and Pathogenesis of Viruses**

A-F only, 3 credit(s); prerequisite [BIOL 3021, BIOL 4003, [3301 or BIOL 4004], 4131] or instructor consent; Credit will not be granted if credit has been received for: MICB 4141W; Instructor: Schiff, Leslie Ann

Description: MICB 4171 is aimed at upper level undergraduates. The course content is appropriate for majors in biology, microbiology, biochemistry and GCD. It is also recommended for graduate students in related sciences. This course is a principle-based (not a virus-by-virus) discussion of virology, emphasizing the common reactions that must be completed by all viruses for successful replication within a host cell and survival and spread within a host population. The molecular basis of alternative reproductive cycles, the interactions of viruses with host organisms, and how these lead to disease will be presented with examples drawn from a set of representative animal viruses. To achieve course objectives, lectures are combined with active learning techniques and activities. These should accommodate students with distinct learning styles. Students will be asked to write informally in class on index cards or in response to learning prompts on a WebCT site. Note: MICB 4171 has an integral WebCT site on which lecture outlines, study guides, info updates and learning prompts are posted. Students use the site to participate by asking and answering questions and extending course discussions. MICB 4171 is IDENTICAL to MICB 4141W with the exception that MICB 4141W students will also participate in ~8 small group meetings, focused on writing in the discipline, and complete additional assignments.

Style: 70% Lecture, 12% Discussion, 15% Small Group Activities, 3% Guest Speakers. Active learning activities and discussion Bonus (unannounced) quizzes bring total possible points to 105%

Grading: 45% mid exam, 45% final exam, 10% written homework. Bonus quizzes worth 5%; % shown are for the nonparticipation option. You can choose a grading option that includes 10% participation, in which the midterm and final exams each count for 35% and papers/projects count for the other 10%.

Exam Format: Multiple choice, short answer, short essay. Study guides preview many of the possible essay questions.

**MICB 4235 Advanced Laboratory: Virology, Immunology, and Microbial Genetics**

3 credit(s); prerequisite [BIOL 3021, BIOL 3021, two [completed, one concurrent] from {4131, 4141W, 4151, 4171}]; Instructor: Bresnahan, Wade A

Description: This laboratory course provides students with hands on training using state of the art molecular biology techniques to address fundamental questions in biology. Emphasis will be placed on techniques relating to virology, immunology, bacterial genetics, and molecular biology, however, all techniques covered in this course are widely used in all biology specialties (i.e., neurobiology, genetics, cell biology, etc). Specific topics covered in the course include DNA, RNA and protein analysis, gene cloning, virus propagation, flow cytometry, bioassays, and cell culture techniques.

Style: 10% Lecture, 90% Laboratory.

Grading: 40% mid exam, 20% final exam, 30% reports/papers, 5% quizzes, 5% class participation.

Exam Format: Multiple choice, matching, true/false, short answer, and essay questions.

**MICB 5205 Microbiology and Immunology for Medical Students**

0-7 credit(s), max credits 7, 1 repeat allowed; Instructor: Schlievert, Patrick M

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

**Microbiology, Immunology, and Cancer Biology**

1460 Mayo (Box 196 UMHC)

**MICA 8003 Immunity and Immunopathology**

4 credit(s); prerequisite Upper level undergrad immunology course or instructor consent; Instructor: Jenkins, Marc

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

**MICA 8004 Cellular and Cancer Biology**

A-F only, 4 credit(s); prerequisite [One undergrad or grad course each in [biochemistry, cell biology]] or instructor consent; Instructor: McCarth-James B

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

**MICA 8009 Biochemical Aspects of Normal and Abnormal Cell Growth and Cell Death**

2 credit(s); prerequisite [BIOL 3021, BIOL 4004] or instructor consent; Instructor: Ahmed PhD, Khalil

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 repeats allowed; prerequisite [MIMP or MICA] grad student or; Instructor: Armstrong, Sandra K

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 repeats allowed; prerequisite [MIMP or MICA] grad student or instructor consent; Instructor: Armstrong, Sandra K

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

**Middle Eastern Languages and Cultures**

214 Nolte Center

**MELC 3533 Islam and the West**

3 credit(s); Credit will not be granted if credit has been received for: CAS 3533; Instructor: Bashiri, Ira

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

**MELC 3601 Persian Fiction in Translation**

3 credit(s); Credit will not be granted if credit has been received for: CAS 3601; Meets CLE req of International Perspect Theme; meets CLE req of Literature Core; Instructor: Bashiri, Ira

Description: Prose fiction was introduced to Iranian society in the early 1920's by Iranian intellectuals returning from Europe. In the beginning it had a difficulty finding a place in Persian literature, but finally it found a niche. Spearheaded by Muhammad Ali Jamalzadeh and promoted by Sadeq Hedayat, prose fiction became Iran's most prominent vehicle for self-expression. The course content is appropriate for majors in biology, microbiology, biochemistry and GCD. It is also recommended for graduate students in related sciences. This course is a principle-based (not a virus-by-virus) discussion of virology, emphasizing the common reactions that must be completed by all viruses for successful replication within a host cell and survival and spread within a host population. The molecular basis of alternative reproductive cycles, the interactions of viruses with host organisms, and how these lead to disease will be presented with examples drawn from a set of representative animal viruses. To achieve course objectives, lectures are combined with active learning techniques and activities. These should accommodate students with distinct learning styles. Students will be asked to write informally in class on index cards or in response to learning prompts on a WebCT site. Note: MICB 4171 has an integral WebCT site on which lecture outlines, study guides, info updates and learning prompts are posted. Students use the site to participate by asking and answering questions and extending course discussions. MICB 4171 is IDENTICAL to MICB 4141W with the exception that MICB 4141W students will also participate in ~8 small group meetings, focused on writing in the discipline, and complete additional assignments.

Style: 70% Lecture, 12% Discussion, 15% Small Group Activities, 3% Guest Speakers. Active learning activities and discussion Bonus (unannounced) quizzes bring total possible points to 105%

Grading: 45% mid exam, 45% final exam, 10% written homework. Bonus quizzes worth 5%; % shown are for the nonparticipation option. You can choose a grading option that includes 10% participation, in which the midterm and final exams each count for 35% and papers/projects count for the other 10%.

Exam Format: Multiple choice, short answer, short essay. Study guides preview many of the possible essay questions.
expression. Young authors, first in the urban centers and later in the countryside used this vehicle for familiarizing their countrymen with the new world realities. the development of Persian fiction In the context of Iran's ancient heritage, students become acquainted with both the internal and external forces that bind contemporary Iranian society to world civilization. The works of Jamalzadeh (Persian Is Sugar), Hedayat (The Blind Owl, The Stray Dog), Al-i Ahmad (The China Vase, Fascinated by the West), Behrangi (The Little Black Fish), and others are analyzed and discussed.

Style: 70% Lecture, 20% Discussion. Video tapes
Grading: 10% mid exam, 15% final exam, 30% reports/papers, 20% quizzes, 10% class participation, 12% other evaluation.
book report; 3% attendance
Exam Format: essay

Military Science
110 Armory

MIL 104 Military Science I Leadership Lab
A-F only, 0 credit(s); prereq 1102;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

MIL 204 Military Science II Leadership Lab
A-F only, 0 credit(s); prereq 0201;
Instructor: Boisen,David J
Description: Student may contact the instructor or department for information.

MIL 304 Military Science III Leadership Lab 304
A-F only, 0 credit(s); prereq 302;
Instructor: Mayo,Sean Christopher
Description: Student may contact the instructor or department for information.

MIL 404 Military Science IV Leadership Lab 0404
A-F only, 0 credit(s); prereq Concurrent registration is required (or allowed) in 3402;
Instructor: Cooper,Curt Scott
Description: Student may contact the instructor or department for information.

MIL 1102 Leadership in Changing Environments
A-F only, 1 credit(s); prereq Concurrent registration is required (or allowed) in 1104;
Instructor: Leonard,Doug Richard
Description: Student may contact the instructor or department for information.

MIL 1104 Military Science I Leadership Lab
A-F only, 1 credit(s); prereq Concurrent registration is required (or allowed) in 1102;
Instructor: Leonard,Doug Richard
Description: Student may contact the instructor or department for information.

MIL 1202 Foundations of Tactical Leadership
A-F only, 2 credit(s); prereq Concurrent registration is required (or allowed) in 1204;
Instructor: Boisen,David J
Description: Student may contact the instructor or department for information.

MIL 1204 Military Science II Leadership Lab
A-F only, 1 credit(s); prereq Concurrent registration is required (or allowed) in 1202;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

MIL 3302 Leadership in Changing Environments
A-F only, 3 credit(s); prereq Two years of ROTC or equiv established by U.S. Army;
Instructor: Mayo,Sean Christopher
Description: Student may contact the instructor or department for information.

MIL 3304 MIL 3304 Military Science III Leadership Lab
A-F only, 1 credit(s); prereq Concurrent registration is required (or allowed) in 3302;
Instructor: Mayo,Sean Christopher
Description: Student may contact the instructor or department for information.

MIL 3402 Leadership in a Complex World
A-F only, 3 credit(s); prereq Complete all other military courses or Army equivs;
Instructor: Cooper,Curt Scott
Description: Student may contact the instructor or department for information.

MIL 3404 Military Science IV Leadership Lab
A-F only, 1 credit(s); prereq Concurrent registration is required (or allowed) in 3402;
Instructor: Cooper,Curt Scott
Description: Student may contact the instructor or department for information.

MIL 3502 Marksmanship Training Programs
A-F only, 2 credit(s); prereq MS [II or IV] cadet;
Instructor: Boisen,David J
Description: Student may contact the instructor or department for information.

MIL 3970 Directed Studies
3 credit(s); prereq dept consent;
Instructor: STAFF
Description: A writing intensive independent study course, evaluating the student's research and analysis skills. This course is open to ROTC advanced course students only.
Grading: 100% reports/papers.

Modern Greek
214 Social Sciences

MDGK 1002 Beginning Modern Greek II
4 credit(s); prereq 1001 or instr consent;
Instructor: Stavrou, Theofanis G
Description: Student may contact the instructor or department for information.

MDGK 1004 Intermediate Modern Greek II
4 credit(s); prereq 1003 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 repeats allowed; prereq Grad MCDG or BMBB major dept consent;
Instructor: Shaw,Jocelyn E
Description: Student may contact the instructor or department for information.

MCDG 8910 Journal Presentations
S-N only, 1 credit(s), max credits 2; prereq Grad MCDG or BMBB major or dept consent;
Instructor: Shaw,Jocelyn E
Description: Student may contact the instructor or department for information.

Mortuary Science
A-275 Mayo (Box 740)

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 3016 Funeral Service Marketing and Merchandising
A-F only, 3 credit(s); prereq Mortuary science major;
Instructor: Christensen,Stephanie Lee
Description: Student may contact the instructor or department for information.

MORT 3019 Funeral Practice II
A-F only, 3 credit(s); prereq 3018, mortuary science major;
Instructor: Mathews,Michael Clark
Description: Student may contact the instructor or department for information.

MORT 3021W Funeral Service Psychology
A-F only, 3 credit(s); prereq Introductory course in general psychology; Meets CLE req of Writing Intensive;
Instructor: Swarthout,David Brian
Description: Student may contact the instructor or department for information.

MORT 3022W Funeral Service Counseling
A-F only, 3 credit(s); prereq 3021W; Meets CLE req of Writing Intensive;
Instructor: Swarthout,David Brian
Description: Student may contact the instructor or department for information.

MORT 3030 Funeral Service Law
A-F only, 2 credit(s); prereq 3025;
Instructor: Meslow,Doug
Description: Student may contact the instructor or department for information.

MORT 3030 Pathology
A-F only, 3 credit(s); prereq Course in human anatomy/physiology;
Instructor: Mathews,Michael Clark
Description: Student may contact the instructor or department for information.

MORT 3031 Restorative Art
A-F only, 2 credit(s); prereq [3061 or 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 Mortuary science major;
Instructor: LaCourt,Jody Lynn
Description: Student may contact the instructor or department for information.

MORT 3065 Embalming Chemistry
A-F only, 3 credit(s); prereq Intro course in general chemistry, registration in mortuary science;
Instructor: Mathews,Michael Clark
Description: Student may contact the instructor or department for information.

MORT 3090 Independent Study Project
1-15 credit(s), max credits 30; prereq Mortuary science major;
Instructor: LuBrant,Michael P
Description: Student may contact the instructor or department for information.

MORT 3091W Independent Study in Funeral Service
1-4 credit(s), max credits 4, 3 repeats allowed; prereq Mortuary science major; Meets CLE req of Writing Intensive;
Instructor: LuBrant,Michael P
Description: Student may contact the instructor or department for information.

MORT 3151 Restorative Art Laboratory
S-N only, 1 credit(s); prereq Concurrent registration is required (or allowed) in 3161, mortuary science major;
Instructor: LaCourt,Jody Lynn
Description: Student may contact the instructor or department for information.

MORT 3161 Embalming Laboratory
S-N only, 1 credit(s); prereq 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 3379 Clinical Funeral Service Rotation
S-N only, 3 credit(s), max credits 9, 3 repeats allowed; prereq Mortuary science major;
Instructor: LuBrant,Michael P
Description: Student may contact the instructor or department for information.

MORT 3380 Funeral Service Practicum
S-N only, 8 credit(s); prereq Mortuary science major who has completed all other coursework;
Instructor: LuBrant,Michael P
Description: Student may contact the instructor or department for information.
MST 5012 Museum Practices
A-F only, 3 credit(s); prereq 5011 or instr consent;
Instructor: King Lyndel Irene
Description: Student may contact the instructor or department for information.

MST 5020 Internship
S-N only, 1-4 credit(s), max credits 32, 32 repeats allowed; prereq 5011, 5012, dept consent;
Instructor: King Lyndel Irene
Description: This course examines the origins and development of Western practices of collecting and exhibiting artifacts and natural specimens from the Renaissance through the present. As part of the course, students become co-curators of an exhibition, Cabinet of Curiosities, to open at the Weisman Art Museum in February 2001. Students work with visiting artist Mark Dion and Weisman director of education Colleen Sheehy to create the exhibition from the multitude of U of M artificial and specimen, ranging from plant, rock, animal and insect specimens to art, medical equipment, books, costumes, and toys. The course explores collecting and display as forms of knowledge production, with special emphasis on the cabinet of curiosities. These were large cabinets where collectors displayed wondrous plucked from the natural and human worlds in careful, evocative arrangements. These ideas will be put into practice through the construction of our own cabinet of curiosities, using U of M collections. Mark Dion is an American artist who employs the methods of an ecologist, biochemist, detective, and archaeologist. He has created dozens of intriguing installation works in internationally, including the Thames Dig at the new Tate Gallery. Colleen Sheehy is director of education at the Weisman Art Museum and adjunct faculty in American studies at the University of Minnesota. She teaches museum studies classes and has organized dozens of exhibitions and public programs.

MUS 1014 Rock II: Rock Music from 1970 to the Present
Grading: 17% mid exam, 17% final exam, 33% reports/papers, 33% class participation.
Style: 60% Lecture, 40% Discussion.
Exam Format: Short-answer questions and brief essays.

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); Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core;
Instructor: Lubet Alex J
Description: A worldwide exploration of the various ways in which music and musicians are utilized and represented in films. Topics include traditional symphonic film scores; film musicals; filmic representations of rock and classical musicians; films based on musical works. Lecture; discussion; viewing of films; readings. Short papers; final project; frequent quizzes; midterm and final exam. Intended for non-music major undergraduates; no prior knowledge of music and musical notation required. Fulfills 'Other Humanities' and 'Global Perspectives' Liberal Education requirements. Instructor is a Morse Alumni Undergraduate Teaching Award winner.
Style: 40% Lecture, 20% Discussion. Viewing of films
Grading: 10% mid exam, 15% final exam, 35% reports/papers, 15% special projects, 15% quizzes. -15% Possible lost points for missed film viewings.
Exam Format: short answer and/or essay

MUS 1021 Introduction to Music
3 credit(s); Credit will not be granted if credit has been received for: MUS 3021; Meets CLE req of Other Humanities Core;
Instructor: Grayson David Alan
Description: For non-majors (no prior knowledge of music required or assumed): Musical Masterpieces of the Millennium, from Gregorian Chant to Jazz. The course begins with fundamentals—the elements of music (rhythm, melody, harmony, texture, etc.) and their notation—but the emphasis will be on the psychology of perception: What do we perceive when we listen to music? The goal is to develop listening skills in order to enhance understanding and enjoyment. An exploration of music and music from Gregorian chant to jazz.
Style: 85% Lecture, 15% Discussion.
Grading: 17% mid exam, 17% final exam, 33% reports/papers, 33% quizzes.
MUS 1051 Class Piano for Nonmusic Majors I
2 credit(s); Meets CLE req of Other Humanities Core;
Instructor: STAFF
Description: Mus 1051, Class Piano for Non-Music Majors. 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” 6th ed. by Elyse Mach. Mus 1051 covers Units 1-2, 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).

MUS 1052 Class Piano for Non Music Majors II
2 credit(s); Meets CLE req of Other Humanities Core;
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, 6th edition, by Elyse Mach. 1052 covers Units 3-5, including major and minor scales; intervals up to an octave; accompaniment styles; ABA form; syncopation; secondary chords; pedalling; 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).

MUS 1152 Piano: Class Lessons II
A-F only, 2 credit(s); prereq instr consent ;
Instructor: STAFF
Description: Continuation of MUS 1151, 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: Keyboard Musician by Lyke. 1152 covers chapters 5-8. 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, 30% quizzes, 20% class participation.

MUS 1156 Keyboard Skills II
A-F only, 2 credit(s); prereq 1155, instr consent;
Instructor: STAFF
Description: Continuation of MUS 1155, 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. Text: Harmonization at the Piano (6th ed.) by Frakenpohl, plus supplementary materials. 1522 covers chapters 8-13 plus vocal and instrumental score reading and jazz chording.
Style: 10% Lecture, 90% Laboratory.
Grading: 30% mid exam, 30% final exam, 30% quizzes, 10% class participation.

MUS 1260 Voice Class
2 credit(s), max credits 4; prereq Basic musicianship for learning and performing simple songs;
Instructor: Ten Brink,Jonathan Marshall
Description: Student may contact the instructor or department for information.

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 performance, practice 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

MUS 1502 Theory and Analysis of Tonal Music II
A-F only, 2 credit(s); prereq [[1501, 1511] 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 1512 Ear-Training and Sight-Singing II
A-F only, 1 credit(s); prereq [[1501, 1511] with grade of at least C- or diagnostic exam 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 1804 World Music
3 credit(s); Meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core;
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 3021 Introduction to Music**

- **Credits**: 3 credit(s)
- **Description**: Credit will not be granted if credit has been received for: MUS 1021; Meets CLE req of Other Humanities Core
- **Instructor**: Grayson, David Alan
- **Description**: For non-majors (no prior knowledge of music required or assumed): Musical Masterpieces of the Millennium, from Gregorian Chant to Jazz. The course begins with fundamentals—the elements of music (rhythm, melody, harmony, texture, etc.) and their notation—but the emphasis will be on the psychology of perception: What do we perceive when we listen to music? The goal is to develop listening skills in order to enhance understanding and enjoyment. An exploration of musical from develops musical memory. After cultivating these listening skills, we will survey representative masterpieces of the past thousand years, starting with chant and ending with works of the late twentieth century, including a smattering of musical comedy and jazz. Along the way we will examine masterpieces by Bach, Mozart, Beethoven, Chopin, Brahms, Stravinsky, and many other famous composers. Some opera videos will be shown. Listening to music in this class is sure to make it the highlight of your day!
- **Style**: 85% Lecture, 15% Discussion
- **Grading**: 17% mid exam, 17% final exam, 33% reports/papers, 33% quizzes
- **Exam Format**: fill in the blanks

**MUS 3230 Chorus**

- **Credits**: 1 credit(s), max credits 8, 8 repeats allowed
- **Prereq**: Choral and/or instrumental music background, audition, instr consent
- **Instructor**: Muhlfedt, Matthew Wayne
- **Description**: Student may contact the instructor or department for information.

**MUS 3264 French Diction for Singers**

- **Credits**: A-F only, 1 credit(s)
- **Prereq**: Voice or choral music major, concurrent enroll in applied voice
- **Instructor**: Del Santo, Jean Marie
- **Description**: The course covers rules of lyric diction, use of International Phonetic Alphabet, elementary grammar and song vocabulary. Students will transcribe song texts into IPA and perform 3-4 French melodies or arias in class for critique by professor and colleagues. An off campus concert may be included as part of the final project. Enrollment limited to students who are applied or principal voice majors, presently studying voice and/or coaches and accompanists.
- **Style**: 25% Lecture, 25% drill, 50% in class performance
- **Grading**: 25% mid exam, 25% final exam, 15% quizzes, 35% other evaluation, performances
- **Exam Format**: written, oral and performance

**MUS 3340 Jazz Ensemble**

- **Credits**: A-F only, 1 credit(s), max credits 8, 8 repeats allowed
- **Prereq**: Audition, instr consent
- **Instructor**: Hey, Philip C
- **Description**: Student may contact the instructor or department for information.

**MUS 3340 Jazz Ensemble**

- **Credits**: A-F only, 1 credit(s), max credits 8, 8 repeats 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 3340 Jazz Ensemble**

- **Credits**: A-F only, 1 credit(s), max credits 8, 8 repeats allowed
- **Prereq**: Audition, instr consent
- **Instructor**: Rossman, Adam Eugene
- **Description**: Student may contact the instructor or department for information.

**MUS 3340 Jazz Ensemble**

- **Credits**: A-F only, 1 credit(s), max credits 8, 8 repeats allowed
- **Prereq**: Audition, instr consent
- **Instructor**: STAFF
- **Description**: Jazz combos study a wide range of small group jazz literature. Time is spent on improvisation and performance practice concepts. Performances are scheduled each semester. Ensembles are open to music majors and non-music majors, and auditions are required. Students are placed according to their ability and experience.
- **Style**: performance/rehearsal

**MUS 3340 University and Campus Bands**

- **Credits**: 2 credit(s), max credits 20, 10 repeats allowed
- **Instructor**: Diem, Timothy W
- **Description**: The Campus Band is a laboratory course designed for undergraduate and graduate students representing a wide variety of academic disciplines across campus. The goal of this organization is to provide students with high level musical experiences through the study of works for large wind band. The group performs twice during the semester. No audition is necessary.
- **Style**: rehearsal
- **Grading**: rehearsal preparation and performance

**MUS 3341 Basic Conducting**

- **Credits**: A-F only, 2 credit(s)
- **Prereq**: 1502, music major
- **Instructor**: Luckhardt, Jerry M
- **Description**: Establish and development of basic conducting skills is the goal with an emphasis on baton technique, nonverbal communication, the role of the conductor and the initial stages of score study. This course is available to all music majors who have completed Mus 3501 or an equivalent.
- **Style**: 20% Lecture, 80% Laboratory
MUS 3410 University Wind Bands  
A-F only, 1 credit(s), max credits 14, 14 repeats allowed;  
prereq Audition, instr consent;  
Instructor: Luckhardt, Jerry M  
Description: A music ensemble 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 by audition only.  
Style: rehearsal  
Grading: rehearsal preparation and performance

MUS 3420 Orchestra  
A-F only, 1 credit(s), max credits 8, 8 repeats allowed;  
prereq Audition, instr consent;  
Instructor: Kirchoff, Craig J  
Description: A select ensemble comprising the University's finest graduate and undergraduate wind and percussion musicians. Performs 5 to 6 concerts on and off campus each academic year. Admission by audition only.  
Style: rehearsal  
Grading: rehearsal preparation and performance

MUS 3440 Chamber Ensemble  
A-F only, 1 credit(s), max credits 8, 8 repeats allowed;  
prereq instr consent;  
Instructor: STAFF  
Description:  
Grading: performances

MUS 3460 Ensemble for the Performance of Early Music, c900-1750  
A-F only, 1 credit(s), max credits 8, 8 repeats allowed;  
Instructor: Comeaux, Garrick  
Description:  
Student may contact the instructor or department for information.

MUS 3490 Athletics Bands  
A-F only, 1 credit(s), max credits 16, 16 repeats allowed;  
prereq instr consent;  
Instructor: Diem, Timothy W  
Description: A continuation of the course from the Fall Semester. 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. Auditions are held in early September for formation of the three groups. Year-long participation is required.  
Style: rehearsal  
Grading: rehearsal preparation and performance

MUS 3502 Theory and Analysis of Tonal Music IV  
A-F only, 2 credit(s); prereq [(3501, 3511) with grade of at least C-] or diagnostic test administered by School of Music;  
Instructor: Shockley, Rebecca P  
Description: Continuation of Mus 3501 Piano Pedagogy I. Demonstration and discussion of teaching techniques, methods, and materials for group and individual instruction. Emphasis on the intermediate to advanced levels. Includes observation,  
Exam Format: Listening ID, short answer, essay

MUS 3509 Review of Tonal Theory IV  
A-F only, 2 credit(s); prereq Grad music student or instr consent;  
Instructor: Damschroder, David A  
Description: The fourth 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 3502 is intended primarily for undergraduate music majors. It may also be elected by graduate music majors to remedy deficiencies (though the course does NOT offer graduate credit).  
Style: 25% Lecture, 50% Discussion, 25% Laboratory.  
Grading: 30% mid exam, 30% final exam, 15% quizzes, 10% problem solving, 15% other evaluation. auditions  
Exam Format: essay

MUS 3512 Ear-Training and Sight-Singing IV  
A-F only, 1 credit(s); prereq [(3501, 3511) with a grade of at least C- or diagnostic exam administered by School of Music], [music major or instr consent];  
Instructor: Damschroder, David A  
Description: May contact the instructor or department for information.

MUS 3519 Review of Ear-Training and Sight-Singing  
A-F only, 1 credit(s); prereq Grad student in music or instr consent;  
Instructor: Orosz, Jeremy W  
Description: May contact the instructor or department for information.

MUS 3601W History of Western Music I  
A-F only, 3 credit(s); prereq dept consent; Meets CLE req of Writing Intensive;  
Instructor: Harness, Kelley Ann  
Description: This is the first course in the undergraduate music history sequence. We will study music composed over a very broad time span, ca. 800 to 1700, looking at the works' musical structures within the larger contexts of musical style, social/political significance, and broad aesthetic and philosophical movements. Because this is a writing intensive (WI) course, both formal and informal writing assignments will constitute a significant percentage (one-third) of the grade. In addition to essay questions on exams, students will complete three short assignments which deal with writing issues (e.g., how and when to create footnotes and bibliographies) and two longer papers. The first of the longer papers will deal with issues of performance in early music, while the second will involve analysis of an individual work. Students are required to purchase the following textbooks: Grout, Donald Jay and Palisca, Claude V. A History of Music, 5th ed. New York: W.W. Norton, 1996 [this book will be used for the entire three-semester sequence] Palisca, Claude V., ed. Norton Anthology of Western Music and accompanying recordings. 3rd ed. 2 vols. New York: W. W. Norton, 1996. The course is intended primarily for undergraduate music majors; other undergraduate students may enroll with the instructor's permission.  
Style: 75% Lecture, 25% Discussion.  
Grading: 33% mid exam, 17% final exam, 33% reports/papers, 17% quizzes.  
Exam Format: Listening ID, short answer, essay

MUS 5102 Piano Pedagogy II  
2 credit(s); prereq 8 cr in MusA 1301 or MusA 1401 or instr consent;  
Instructor: Damschroder, David A  
Description: Continuation of Mus 5101 Piano Pedagogy I. Demonstration and discussion of teaching techniques, methods, and materials for group and individual instruction. Emphasis on the intermediate to advanced levels. Includes observation,  
Exam Format:
reading, discussion, class presentations, and hands-on experience. Text: The Well-Tempered Keyboard Teacher, 2nd ed., by Uszler et al., plus supplementary course packet. Intended for piano majors or for pianists with prior piano teaching experience. Prereq two years of college-level applied piano instruction or #. Open to non-degree students through Extension.

**Style:** 25% Lecture, 25% Discussion, 25% Laboratory. student oral reports

**Grading:** 20% mid exam, 20% final exam, 20% reports/papers, 20% in-class presentation, 20% class participation.

**Exam Format:** essay

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**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. Its principles address how the daily habits in the use of the self (such as sitting, standing and walking) affect seemingly disparate problems such as stage fright, muscular-skeletal 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 technique. The Alexander Technique provides tools to enhance fundamental coordination. Its application can lead to greater performance ease and a reduction of chronic aches and pains. Class enrollment is limited and the class will include individual &quot;hands-on&quot; mini-lessons each week. The texts used are: 'Use of the Self,' by F. M. Alexander; 'Indirect Procedures--A Musician's Guide to the Alexander Technique,' by Pedro de Alcantara; and 'Body Learning' by Michael Gelb. Class discussions will center on assigned readings and each student will be responsible for three short papers on selected portions of the texts. Open to musicians and non-musicians. For more info: www.MN-AlexanderTechnique.com. If class is full, email the instructor at: mccul045@umn.edu for permission to add.
- **Style:** 10% Lecture, 25% Discussion, 25% Laboratory. individual work with students
- **Grading:** 50% class participation, 50% other evaluation.
- **Attendance:**

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**MUS 5152 Organ Literature II**

- 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.

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**MUS 5182 Advanced Piano Literature II**

- 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.

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**MUS 5230 Chorus**

- 1 credit(s), max credits 8, 8 repeats allowed; prereq Choral and/or instrumental music background; audition, instr consent;
- **Instructor:** Mehaffey, Matthew Wayne
- **Description:** Student may contact the instructor or department for information.

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**MUS 5240 Chamber Singers**

- A-F only, 1 credit(s), max credits 8, 8 repeats allowed; prereq Audition, instr consent;
- **Instructor:** Romey, Kathy Saltzman
- **Description:** Student may contact the instructor or department for information.

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**MUS 5250 Opera Workshop and Ensemble**

- A-F only, 2 credit(s), max credits 16, 8 repeats allowed; prereq audition, instr consent;
- **Instructor:** Walsh, David Allan
- **Description:** The 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'. This course will be determined on the basis of audition and will be restricted to juniors and seniors in the undergraduate programme.
- **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.

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**MUS 5250 Opera Workshop and Ensemble**

- A-F only, 2 credit(s), max credits 16, 8 repeats allowed; prereq audition, instr consent;
- **Instructor:** Anderson, Laura Elizabeth
- **Description:** Student may contact the instructor or department for information.

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**MUS 5272 Diction for Singers II**

- A-F only, 2 credit(s); prereq 12 cr MusA 1304 or grad music major or instr consent;
- **Instructor:** De Haan, John
- **Description:** Student may contact the instructor or department for information.

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**MUS 5276 Vocal Pedagogy II**

- A-F only, 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.

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**MUS 5336 Jazz Arranging**

- A-F only, 3 credit(s); prereq 3502 or instr consent;
- **Instructor:** Sorenson, Dean Patrick
- **Description:** Student may contact the instructor or department for information.

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**MUS 5340 Jazz Ensemble**

- A-F only, 1 credit(s), max credits 6, 6 repeats 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

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**MUS 5340 Jazz Ensemble**

- A-F only, 1 credit(s), max credits 6, 6 repeats allowed; prereq audition, instr consent;
- **Instructor:** Rossmiller, Adam Eugene
- **Description:** Student may contact the instructor or department for information.

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**MUS 5380 Gospel Choir**

- A-F only, 1 credit(s), max credits 4, 4 repeats allowed;
- **Instructor:** Moore, Sanford Lajuan
- **Description:** Student may contact the instructor or department for information.

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This information is accurate as of 6/9/2008 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.
MUS 5410 University Wind Bands  
A-F only, 1 credit(s), max credits 14, 14 repeats 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 5420 Orchestra  
A-F only, 1 credit(s), max credits 8, 8 repeats allowed;  
prereq audition, instr consent;  
Instructor: Smith, Mark Russell  
Description: Student may contact the instructor or department for information.

MUS 5427 Violin Pedagogy I  
A-F only, 2 credit(s); prereq Violin or viola major or instr consent;  
Instructor: O'Reilly, Sally P  
Description: Student may contact the instructor or department for information.

MUS 5440 Chamber Ensemble  
A-F only, 1 credit(s), max credits 8, 8 repeats allowed;  
prereq audition, instr consent;  
Instructor: STAFF  
Description:  
Grading: performance

MUS 5460 Ensemble for the Performance of Early Music, c900-1750  
A-F only, 1 credit(s), max credits 8, 8 repeats allowed;  
Instructor: Comeaux, Garrick  
Description: Student may contact the instructor or department for information.

MUS 5462 Guitar Literature II: History and Repertoire Since 1900  
2 credit(s);  
Instructor: Fiegel, James F  
Description: Student may contact the instructor or department for information.

MUS 5464 Cello Pedagogy  
A-F only, 2 credit(s);  
Instructor: Remenikova, Tanya  
Description: Student may contact the instructor or department for information.

MUS 5466 Guitar Pedagogy  
A-F only, 2 credit(s); prereq Guitar principal or major or instr consent;  
Instructor: Fiegel, James F  
Description: Student may contact the instructor or department for information.

MUS 5485 Transcription for Winds  
2 credit(s); prereq 3502 or instr consent;  
Instructor: Baldwin, David B  
Description: Student may contact the instructor or department for information.

MUS 5487 20th-Century European/American Music  
A-F only, 3 credit(s);  
Instructor: Dillon, James F  
Description: Student may contact the instructor or department for information.

MUS 5562 Orchestration II  
A-F only, 3 credit(s); prereq 5561;  
Instructor: Painter, PhD, Karen  
Description: Student may contact the instructor or department for information.

MUS 5567 20th-Century European/American Music  
3 credit(s); prereq 3603 or equiv, 5501 or equiv, 12 undergrad cr in music history;  
Instructor: Painter, PhD, Karen  
Description: Student may contact the instructor or department for information.

MUS 5670 Topics in Music  
1-4 credit(s), max credits 15, 15 repeats allowed;  
Instructor: Harness, Kelley Ann  
Description: Student may contact the instructor or department for information.

MUS 5690 Topics in Music  
1-4 credit(s), max credits 15, 15 repeats allowed;  
Instructor: Schultz, Anna Christine  
Description: Student may contact the instructor or department for information.

MUS 5690 Topics in Music  
1-4 credit(s), max credits 15, 15 repeats allowed;  
Instructor: Mazzola, PhD, Guerino  
Description: Student may contact the instructor or department for information.

MUS 5690 Topics in Music  
1-4 credit(s), max credits 15, 15 repeats allowed;  
Instructor: Currie, Scott  
Description: Student may contact the instructor or department for information.

MUS 5690 Topics in Music  
1-4 credit(s), max credits 15, 15 repeats allowed;  
Instructor: Ilnitchi Currie, Gabriela  
Description: Student may contact the instructor or department for information.
MUS 8112 Instrumental Repertoire: Reduction and Realization
A-F only, 2 credit(s); prereq Grad student in accompanying/conducting;
Instructor: Kawaj Noriko
Description: Student may contact the instructor or department for information.

MUS 8133 Seminar in Basso Continuo
A-F only, 3 credit(s); prereq Grad student in Music or instr consent;
Instructor: Billmeyer,Dean W
Description: Student may contact the instructor or department for information.

MUS 8171 Song Repertoire and Performance for Pianists and Singers: German Lieder
A-F only, 2 credit(s); prereq [Grad student with major in vocal performance or in accompanying or in piano], instr consent;
Instructor: Lovelace,Timothy
Description: Student may contact the instructor or department for information.

MUS 8183 Opera History in Context: Verdi and Britten
A-F only, 3 credit(s); prereq Grad student in music or instr consent;
Instructor: Walsh,David Allan
Description: Opera History examines the development of Opera in the context of other artistic, social, cultural, and political events, movements and changes in the 19th and 20th century. The course will focus on two representative composers and their works: Giuseppe Verdi (La Traviata, Don Carlos, Aida, Otello, and Falstaff) and Benjamin Britten (Peter Grimes, Turn of the Screw, A Midsummer Nights Dream, The Church Parables, and Death in Venice). This is not a survey course focusing on dates and names but rather an in-depth, musico-dramatic examination of the works of these composers and the forces which shaped their composition. One third of class time will be spent studying recordings and videos/DVDs representing contrasting approaches to the performance and staging of these works. All of these works are available in the Music Library and portions of them will be made available to registered students online during the semester. Students will be evaluated on the basis of two written assignments (5000 word papers), one 20-minute oral presentation, and one short take-home test, as well as in-class participation. Students will be expected, as part of their workload, to research specific operas, listen to and analyse different performance styles, and to view video/DVD recordings in order to understand different production approaches to the respective works. This out-of-class research should amount to a minimum of three hours per week.
Style: 50% Lecture, 30% Film/Video, 15% Discussion, 5% Student Presentation.

MUS 8255 Choral Literature: Baroque Era to the Present
A-F only, 3 credit(s); prereq instr consent;
Instructor: Mehaffey,Matthew Wayne
Description: Student may contact the instructor or department for information.

MUS 8299 Performance in Choral Conducting
A-F only, 3 credit(s); prereq instr consent;
Instructor: Romney,Kathy Saltzman
Description: Student may contact the instructor or department for information.

MUS 8450 Graduate Seminar in Conducting
A-F only, 3-4 credit(s), max credits 32, 8 repeats allowed; prereq Grad student in conducting or instr consent;
Instructor: Romney,Kathy Saltzman
Description: Student may contact the instructor or department for information.

MUS 8450 Graduate Seminar in Conducting
A-F only, 3-4 credit(s), max credits 32, 8 repeats allowed; prereq Grad student in conducting or instr consent;
Instructor: Kirchhoff,Craig J
Description: Student may contact the instructor or department for information.

MUS 8479 Performance and Document: Wind Ensemble/Band Conducting
A-F only, 2 credit(s); prereq 8472, instr consent;
Instructor: Kirchhoff,Craig J
Description: Student may contact the instructor or department for information.

MUS 8550 Composition
A-F only, 3 credit(s), max credits 12, 4 repeats allowed; prereq instr consent;
Instructor: Lubet,Alex J
Description: Student may contact the instructor or department for information.

MUS 8550 Composition
A-F only, 3 credit(s), max credits 12, 4 repeats allowed; prereq instr consent;
Instructor: Geers,Doug
Description: Student may contact the instructor or department for information.

MUS 8550 Composition
A-F only, 3 credit(s), max credits 12, 4 repeats allowed; prereq instr consent;
Instructor: Dillon,James F
Description: Student may contact the instructor or department for information.

MUS 8582 Schenkerian Theory and Analysis II
A-F only, 3 credit(s); prereq 8581 or instr consent;
Instructor: Damschroder,David A
Description: Student may contact the instructor or department for information.

MUS 8590 Topics in 20th-Century Analysis
A-F only, 3 credit(s), max credits 12, 4 repeats allowed; prereq Grad music major, instr consent;
Instructor: Cherlin,Michael
Description: Student may contact the instructor or department for information.

MUS 8590 Topics in 20th-Century Analysis: The Mathematical Design of Future Music
A-F only, 3 credit(s), max credits 12, 4 repeats allowed; prereq Grad music major, instr consent;
Instructor: Mazzola PhD,Guerino
Description: Student may contact the instructor or department for information.

MUS 8640 Seminar in Musicology
A-F only, 3 credit(s), max credits 12, 4 repeats allowed; prereq Musicology or theory emphasis or instr consent;
Instructor: Mercer-Taylor,Peter J
Description: Student may contact the instructor or department for information.

MUS 8640 Seminar in Musicology
A-F only, 3 credit(s), max credits 12, 4 repeats allowed; prereq Musicology or theory emphasis or instr consent;
Instructor: Ilnitchi Currie,Gabriela
Description: Student may contact the instructor or department for information.
Music Applied

100 Ferguson Hall

MUSA 1101 Piano: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: STAFF  
Description: Individual piano instruction by graduate piano TAs for non-music majors with prior piano study. Weekly half-hour 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 TA. 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/degrees/nds.htm  
Style: individual lessons  
Grading: 40% final exam, 60% other evaluation. weekly lesson preparation  
Exam Format: individual keyboard performance (jury)

MUSA 1102 Harpsichord: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: Billmeyer, Dean W  
Description: Student may contact the instructor or department for information.

MUSA 1103 Organ: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: Billmeyer, Dean W  
Description: Student may contact the instructor or department for information.

MUSA 1104 Voice: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: Fadell, Rebecca Grace  
Description: Student may contact the instructor or department for information.

MUSA 1104 Voice: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: Ten Brink, Jonathan Marshall  
Description: Student may contact the instructor or department for information.

MUSA 1104 Voice: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: Noonan, Noelle  
Description: Student may contact the instructor or department for information.

MUSA 1104 Voice: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: Schoenecker, Ann Elise  
Description: Student may contact the instructor or department for information.

MUSA 1105 Violin: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq Departmental Consent Required;  
Instructor: Kim, Young-Nam  
Description: Student may contact the instructor or department for information.

MUSA 1105 Violin: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq Departmental Consent Required;  
Instructor: Moiseeva, Natalia  
Description: Student may contact the instructor or department for information.

MUSA 1106 Viola: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: Petraborj, Kirsti Johanna  
Description: Student may contact the instructor or department for information.

MUSA 1106 Viola: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: Knoepfel, Justin C  
Description: Student may contact the instructor or department for information.

MUSA 1107 Cello: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: Nelson, Gregory A  
Description: Student may contact the instructor or department for information.

MUSA 1107 Cello: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: Alvarez, Ramiro R  
Description: Student may contact the instructor or department for information.

MUSA 1108 Double Bass: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: Clute, James Lewis  
Description: Student may contact the instructor or department for information.

MUSA 1109 Flute: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: McNamara, Erica Lynne  
Description: Student may contact the instructor or department for information.

MUSA 1109 Flute: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: Wilson, Christina D  
Description: Student may contact the instructor or department for information.

MUSA 1111 Oboe: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: McKeeighan, Caitlin Patricia  
Description: Student may contact the instructor or department for information.

MUSA 1112 Clarinet: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: Chung, Min-jung  
Description: Student may contact the instructor or department for information.

MUSA 1113 Saxophone: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;  
prereq dept consent;  
Instructor: Duncan, Preston Chadwick  
Description: Student may contact the instructor or department for information.
MUSA 1113 Saxophone: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;
prereq dept consent ;
Instructor: Dromgold, Allison Frances
Description: Student may contact the instructor or department for information.

MUSA 1114 Bassoon: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;
prereq dept consent ;
Instructor: Kern, Stacy J
Description: Student may contact the instructor or department for information.

MUSA 1115 French Horn: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;
prereq dept consent ;
Instructor: Wolf, Jenna M
Description: Student may contact the instructor or department for information.

MUSA 1116 Trumpet: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;
Instructor: Anderson, Matthew Douglas
Description: Student may contact the instructor or department for information.

MUSA 1117 Trombone: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;
Instructor: Jameson, Aaron L
Description: Student may contact the instructor or department for information.

MUSA 1118 Euphonium: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;
Instructor: Adams, Jared O
Description: Student may contact the instructor or department for information.

MUSA 1119 Tuba: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 1121 Percussion: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;
Instructor: Pavlov, John Gregory
Description: Student may contact the instructor or department for information.

MUSA 1123 Guitar: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;
Instructor: Jonker, Jacob Peter
Description: Student may contact the instructor or department for information.

MUSA 1123 Guitar: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;
Instructor: Everist, Evan P
Description: Student may contact the instructor or department for information.

MUSA 1123 Guitar: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;
Instructor: Hodges, Ian Jeffrey
Description: Student may contact the instructor or department for information.

MUSA 1301 Piano--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Shaw, Paul Magnus
Description: Student may contact the instructor or department for information.

MUSA 1301 Piano--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Artymw, Lydia
Description: Student may contact the instructor or department for information.

MUSA 1301 Piano--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Shockley, Rebecca P
Description: Student may contact the instructor or department for information.

MUSA 1302 Harpsichord--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Bilmeyer, Dean W
Description: Student may contact the instructor or department for information.

MUSA 1303 Organ--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
MUSA 1304 Voice--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Konkol,Korey Bernard
Description: Student may contact the instructor or department for information.

MUSA 1304 Voice--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: O'Reilly,Sally P
Description: Student may contact the instructor or department for information.

MUSA 1304 Voice--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Maurice,Glenda A
Description: Student may contact the instructor or department for information.

MUSA 1304 Voice--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
Instructor: Billmeyer,Dean W
Description: Student may contact the instructor or department for information.

MUSA 1304 Voice--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Kierig,Barbara G
Description: Student may contact the instructor or department for information.

MUSA 1304 Voice--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Clute,James Lewis
Description: Student may contact the instructor or department for information.

MUSA 1305 Violin--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Meffert-Nelson,Karrin Diane
Description: Student may contact the instructor or department for information.

MUSA 1305 Violin--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Bogorad,Julia A
Description: Student may contact the instructor or department for information.

MUSA 1305 Violin--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Davis,Immanuel
Description: Student may contact the instructor or department for information.

MUSA 1305 Violin--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Turner,Thomas
Description: Student may contact the instructor or department for information.

MUSA 1307 Cello--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Hara,Burt T
Description: Student may contact the instructor or department for information.

MUSA 1308 Double Bass--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Billmeyer,Dean W
Description: Student may contact the instructor or department for information.

MUSA 1308 Double Bass--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Bogorad,Julia A
Description: Student may contact the instructor or department for information.

MUSA 1308 Double Bass--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Bozeman,Brian W
Description: Student may contact the instructor or department for information.

MUSA 1309 Flute--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Snow,John D
Description: Student may contact the instructor or department for information.

MUSA 1311 Oboe--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Anderson,John Edward
Description: Student may contact the instructor or department for information.

MUSA 1311 Oboe--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Reeves,Basil
Description: Student may contact the instructor or department for information.

MUSA 1312 Clarinet--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Anderson,John Edward
Description: Student may contact the instructor or department for information.

MUSA 1312 Clarinet--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Meffert-Nelson,Karrin Diane
Description: Student may contact the instructor or department for information.

MUSA 1312 Clarinet--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Hara,Burt T
Description: Student may contact the instructor or department for information.
MUSA 1313 Saxophone--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Wyatt,Angelia J  
Description: Student may contact the instructor or department for information.

MUSA 1313 Saxophone--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Rouseau,Eugene E  
Description: Student may contact the instructor or department for information.

MUSA 1314 Bassoon--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Miller Jr.,John W  
Description: Student may contact the instructor or department for information.

MUSA 1314 Bassoon--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Nielubowski,Norbert John  
Description: Student may contact the instructor or department for information.

MUSA 1315 French Horn--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Ullery,Charles G  
Description: Student may contact the instructor or department for information.

MUSA 1315 French Horn--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Lemen,Caroline May  
Description: Student may contact the instructor or department for information.

MUSA 1316 Trumpet--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Baldwin,David B  
Description: Student may contact the instructor or department for information.

MUSA 1316 Trumpet--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Bordiner,Gary Alan  
Description: Student may contact the instructor or department for information.

MUSA 1317 Trombone--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Tranter,John Harrington  
Description: Student may contact the instructor or department for information.

MUSA 1317 Trombone--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Ashworth,Thomas Jackson  
Description: Student may contact the instructor or department for information.

MUSA 1318 Euphonium--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Tranter,John Harrington  
Description: Student may contact the instructor or department for information.

MUSA 1318 Euphonium--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Ashworth,Thomas Jackson  
Description: Student may contact the instructor or department for information.

MUSA 1318 Euphonium--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Werden,David Ray  
Description: Student may contact the instructor or department for information.

MUSA 1319 Tuba--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Tranter,John Harrington  
Description: Student may contact the instructor or department for information.

MUSA 1319 Tuba--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Campbell,Steven C  
Description: Student may contact the instructor or department for information.

MUSA 1321 Percussion--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Hey,Philip C  
Description: Student may contact the instructor or department for information.

MUSA 1321 Percussion--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Meza,Fernando A.  
Description: Student may contact the instructor or department for information.

MUSA 1321 Percussion--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Yeager,Steven Michael  
Description: Student may contact the instructor or department for information.

MUSA 1321 Percussion--Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Kogan,Peter  
Description: Student may contact the instructor or department for information.
Instructor: Kienzle,Kathy
Description: Student may contact the instructor or department for information.
MUSA 1323 Guitar--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Fiegel,James F
Description: Student may contact the instructor or department for information.

MUSA 1323 Guitar--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Van,Jeffrey Wylie
Description: Student may contact the instructor or department for information.

MUSA 1401 Piano--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Music major, dept consent;
Instructor: STAFF
Description: Individual piano instruction by graduate piano TAs for music majors who have completed Class Piano Mus 1151-1152 or equivalent proficiency. Weekly half-hour 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/degrees/degreesundergrad.htm
Style: individual lessons
Grading: 40% final exam, 60% other evaluation. weekly lesson preparation
Exam Format: individual keyboard performance (jury)

MUSA 1402 Harpsichord--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Billmeyer,Dean W
Description: Student may contact the instructor or department for information.

MUSA 1403 Organ--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Billmeyer,Dean W
Description: Student may contact the instructor or department for information.

MUSA 1404 Voice--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Fadell,Rebecca Grace
Description: Student may contact the instructor or department for information.

MUSA 1404 Voice--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Ten Brink,Jonathan Marshall
Description: Student may contact the instructor or department for information.

MUSA 1404 Voice--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Noonan,Noelle
Description: Student may contact the instructor or department for information.

MUSA 1404 Voice--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Schoenecker,Ann Elise
Description: Student may contact the instructor or department for information.

MUSA 1405 Violin--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Kim,Young-Nam
Description: Student may contact the instructor or department for information.

MUSA 1405 Violin--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Moiseeva,Natalia
Description: Student may contact the instructor or department for information.

MUSA 1406 Viola--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Petraborg,Kirsti Johanna
Description: Student may contact the instructor or department for information.

MUSA 1406 Viola--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Knopfel,Justin C
Description: Student may contact the instructor or department for information.

MUSA 1407 Cello--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Nelson,Gregory A
Description: Student may contact the instructor or department for information.

MUSA 1407 Cello--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Alvarez,Ramiro R
Description: Student may contact the instructor or department for information.

MUSA 1408 Double Bass--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Clute,James Lewis
Description: Student may contact the instructor or department for information.

MUSA 1409 Flute--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: McNamara,Erica Lynne
Description: Student may contact the instructor or department for information.

MUSA 1411 Oboe--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: McKeighan,Caitlin Patricia
Description: Student may contact the instructor or department for information.

MUSA 1412 Clarinet--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Chung,Min-jung
Description: Student may contact the instructor or department for information.

MUSA 1413 Saxophone--Secondary
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
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MUSA 1501 Piano: Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Billmeyer, Dean W
Description: Student may contact the instructor or department for information.

MUSA 1502 Harpsichord: Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Bogorad, Julia A
Description: Student may contact the instructor or department for information.

MUSA 1508 Double Bass-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Clute, James Lewis
Description: Student may contact the instructor or department for information.

MUSA 1509 Flute-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Davis, Immanuel
Description: Student may contact the instructor or department for information.

MUSA 1511 Oboe-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Reeve, Basil
Description: Student may contact the instructor or department for information.

MUSA 1505 Violin-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Shookley, Rebecca P
Description: Student may contact the instructor or department for information.

MUSA 1506 Viola-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Remenikova, Tanya
Description: Student may contact the instructor or department for information.

MUSA 1507 Cello-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Brown, Christopher Craig
Description: Student may contact the instructor or department for information.

MUSA 1504 Voice-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Del Santo, Jean Marie
Description: Student may contact the instructor or department for information.

MUSA 1509 Flute-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Bogorad, Julia A
Description: Student may contact the instructor or department for information.

MUSA 1505 Violin-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: O'Reilly, Sally P
Description: Student may contact the instructor or department for information.

MUSA 1505 Violin-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Bjork, Mark P
Description: Student may contact the instructor or department for information.

MUSA 1504 Voice-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Maurice, Glenda A
Description: Student may contact the instructor or department for information.

MUSA 1506 Viola-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Konkol, Korey Bernard
Description: Student may contact the instructor or department for information.

MUSA 1507 Cello-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Turner, Thomas
Description: Student may contact the instructor or department for information.

MUSA 1508 Double Bass-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Billmeyer, Dean W
Description: Student may contact the instructor or department for information.

MUSA 1509 Flute-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; 
prereq Audition, dept consent; 
Instructor: Bogorad, Julia A
Description: Student may contact the instructor or department for information.
MUSA 1512 Clarinet-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Anderson, John Edward
Description: Student may contact the instructor or department for information.

MUSA 1512 Clarinet-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Meffert-Nelson, Karrin Diane
Description: Student may contact the instructor or department for information.

MUSA 1513 Saxophone-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Ullery, Charles G
Description: Student may contact the instructor or department for information.

MUSA 1513 Saxophone-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Rousseau, Eugene E
Description: Student may contact the instructor or department for information.

MUSA 1514 Bassoon-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Miller Jr., John W
Description: Student may contact the instructor or department for information.

MUSA 1514 Bassoon-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Niehubowski, Norbert John
Description: Student may contact the instructor or department for information.

MUSA 1514 Bassoon-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Ullery, Charles G
Description: Student may contact the instructor or department for information.

MUSA 1515 French Horn-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Winslow, Herbert Eugene
Description: Student may contact the instructor or department for information.

MUSA 1515 French Horn-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Lemen, Caroline May
Description: Student may contact the instructor or department for information.

MUSA 1515 French Horn-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Gast, Michael C
Description: Student may contact the instructor or department for information.

MUSA 1516 Trumpet-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Baldwin, David B
Description: Student may contact the instructor or department for information.

MUSA 1516 Trumpet-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Bordner, Gary Alan
Description: Student may contact the instructor or department for information.

MUSA 1517 Trombone-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Tranler, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 1517 Trombone-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Ashworth, Thomas Jackson
Description: Student may contact the instructor or department for information.

MUSA 1518 Euphonium-Major Beyond Requirements
2-4 credit(s), max credits 32, 8 repeats allowed; prereq Audition, dept consent;
Instructor: Werden, David Ray
Description: Student may contact the instructor or department for information.

MUSA 1518 Euphonium-Major Beyond Requirements
2-4 credit(s), max credits 32, 8 repeats allowed; prereq Audition, dept consent;
Instructor: Ashworth, Thomas Jackson
Description: Student may contact the instructor or department for information.

MUSA 1519 Tuba-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Tranler, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 1519 Tuba-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Campbell, Steven C
Description: Student may contact the instructor or department for information.

MUSA 1519 Tuba-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Campbell, Steven C
Description: Student may contact the instructor or department for information.
MUSA 1521 Percussion-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Hey, Philip C
Description: Student may contact the instructor or department for information.

MUSA 1521 Percussion-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Meza, Steven Michael
Description: Student may contact the instructor or department for information.

MUSA 1521 Percussion-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Kogan, Peter
Description: Student may contact the instructor or department for information.

MUSA 1522 Harp-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Kienzle, Kathy
Description: Student may contact the instructor or department for information.

MUSA 1523 Guitar-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Flegel, James F
Description: Student may contact the instructor or department for information.

MUSA 1523 Guitar-Major Beyond Requirements
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Van, Jeffrey Wylie
Description: Student may contact the instructor or department for information.

MUSA 1901 Piano--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Shaw, Paul Magnus
Description: Student may contact the instructor or department for information.

MUSA 1901 Piano--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Artymiw, Lydia
Description: Student may contact the instructor or department for information.

MUSA 1901 Piano--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Shockley, Rebecca P
Description: Student may contact the instructor or department for information.

MUSA 1901 Piano--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Braginsky, Alexander
Description: Student may contact the instructor or department for information.

MUSA 1902 Harpsichord--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Billmeyer, Dean W
Description: Student may contact the instructor or department for information.

MUSA 1903 Organ--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Del Santo, Jean Marie
Description: Student may contact the instructor or department for information.

MUSA 1904 Voice--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Maurice, Glenda A
Description: Student may contact the instructor or department for information.

MUSA 1904 Voice--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Kierig, Barbara G
Description: Student may contact the instructor or department for information.

MUSA 1904 Voice--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Zaro-Mullins, Wendy
Description: Student may contact the instructor or department for information.

MUSA 1904 Voice--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Maurice, Glenda A
Description: Student may contact the instructor or department for information.

MUSA 1904 Voice--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Kogan, Peter
Description: Student may contact the instructor or department for information.

MUSA 1904 Voice--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: De Haan, John
Description: Student may contact the instructor or department for information.

MUSA 1905 Violin--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Kogan, Peter
Description: Student may contact the instructor or department for information.

MUSA 1905 Violin--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: O'Reilly, Sally P
Description: Student may contact the instructor or department for information.

MUSA 1905 Violin--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Del Santo, Jean Marie
Description: Student may contact the instructor or department for information.
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<td>Anderson,John Edward</td>
<td>Student may contact the instructor or department for information.</td>
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<td>A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prereq Audition, dept consent;</td>
<td>Brown,Christopher Craig</td>
<td>Description: Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 1909</td>
<td>Flute--Transfer</td>
<td>Snow,John D</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td></td>
<td>A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prereq Audition, dept consent;</td>
<td>Davis,Immanuel</td>
<td>Description: Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 1911</td>
<td>Oboe--Transfer</td>
<td>Reeve,Basil</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
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<td></td>
<td>A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prereq Audition, dept consent;</td>
<td>Anderson,John Edward</td>
<td>Description: Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 1912</td>
<td>Clarinet--Transfer</td>
<td>Melfert-Nelson,Karrin Diane</td>
<td>Student may contact the instructor or department for information.</td>
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<tr>
<td></td>
<td>A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prereq Audition, dept consent;</td>
<td>Anderson,John Edward</td>
<td>Description: Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td></td>
<td>A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prereq Audition, dept consent;</td>
<td>Tranter,John Harrington</td>
<td>Description: Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td></td>
<td>A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prereq Audition, dept consent;</td>
<td>Tranter,John Harrington</td>
<td>Description: Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 1913</td>
<td>Saxophone--Transfer</td>
<td>Rousseau,Eugene E</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td></td>
<td>A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prereq Audition, dept consent;</td>
<td>Rousseau,Eugene E</td>
<td>Description: Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 1914</td>
<td>Bassoon--Transfer</td>
<td>Ullery,Charles G</td>
<td>Student may contact the instructor or department for information.</td>
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<td></td>
<td>A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prereq Audition, dept consent;</td>
<td>Ullery,Charles G</td>
<td>Description: Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 1915</td>
<td>French Horn--Transfer</td>
<td>Gast,Michael C</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
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<td>A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prereq Audition, dept consent;</td>
<td>Gast,Michael C</td>
<td>Description: Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 1916</td>
<td>Trumpet--Transfer</td>
<td>Baldwin,David B</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td></td>
<td>A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prereq Audition, dept consent;</td>
<td>Baldwin,David B</td>
<td>Description: Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td>MUSA 1917</td>
<td>Trombone--Transfer</td>
<td>Tranter,John Harrington</td>
<td>Student may contact the instructor or department for information.</td>
</tr>
<tr>
<td></td>
<td>A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prereq Audition, dept consent;</td>
<td>Tranter,John Harrington</td>
<td>Description: Student may contact the instructor or department for information.</td>
</tr>
</tbody>
</table>

This information is accurate as of 6/9/2008 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 1917 Trombone--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Ashworth,Thomas Jackson
Description: Student may contact the instructor or department for information.

MUSA 1918 Euphonium--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Ashworth,Thomas Jackson
Description: Student may contact the instructor or department for information.

MUSA 1918 Euphonium--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Tranter,John Harrington
Description: Student may contact the instructor or department for information.

MUSA 1919 Tuba--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Tranter,John Harrington
Description: Student may contact the instructor or department for information.

MUSA 1919 Tuba--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Werden,David Ray
Description: Student may contact the instructor or department for information.

MUSA 1919 Tuba--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Billmeyer,Dean W
Instructor: Billmeyer,Dean W
Description: Student may contact the instructor or department for information.

MUSA 1921 Percussion--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Hey,Philip C
Description: Student may contact the instructor or department for information.

MUSA 1921 Percussion--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Artymiw,Lydia
Instructor: Artymiw,Lydia
Description: Student may contact the instructor or department for information.

MUSA 1921 Percussion--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Shaw,Paul Magnus
Instructor: Shaw,Paul Magnus
Description: Student may contact the instructor or department for information.

MUSA 1922 Harp--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Kienzle,Kathy
Description: Student may contact the instructor or department for information.

MUSA 1923 Guitar--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Flegel,James F
Description: Student may contact the instructor or department for information.

MUSA 1923 Guitar--Transfer
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed;
prereq Audition, dept consent;
Instructor: Van,Jeffrey Wylie
Description: Student may contact the instructor or department for information.

MUSA 2301 Piano-Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Braginsky,Alexander
Instructor: Braginsky,Alexander
Description: Student may contact the instructor or department for information.

MUSA 2301 Piano-Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Billmeyer,Dean W
Instructor: Billmeyer,Dean W
Description: Student may contact the instructor or department for information.

MUSA 2301 Piano-Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Bilmeyer,Dean W
Instructor: Bilmeyer,Dean W
Description: Student may contact the instructor or department for information.

MUSA 2302 Harpsichord-Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, instr consent;
Instructor: Bilmeyer,Dean W
Instructor: Bilmeyer,Dean W
Description: Student may contact the instructor or department for information.

MUSA 2303 Organ-Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Bilmeyer,Dean W
Instructor: Bilmeyer,Dean W
Description: Student may contact the instructor or department for information.

MUSA 2304 Voice-Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Del Santo, Jean Marie
Instructor: Del Santo, Jean Marie
Description: Student may contact the instructor or department for information.

MUSA 2304 Voice-Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Maurice, Glenda A  
**Description:** Student may contact the instructor or department for information.

MUSA 2304 Voice-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Kierig, Barbara G  
**Description:** Student may contact the instructor or department for information.

MUSA 2304 Voice-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Zaro-Mullins, Wendy  
**Description:** Student may contact the instructor or department for information.

MUSA 2304 Voice-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** De Haan, John  
**Description:** Student may contact the instructor or department for information.

MUSA 2305 Violin-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Kim, Young-Nam  
**Description:** Student may contact the instructor or department for information.

MUSA 2305 Violin-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Fleezanis, Joria K  
**Description:** Student may contact the instructor or department for information.

MUSA 2305 Violin-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** O'Reilly, Sally P  
**Description:** Student may contact the instructor or department for information.

MUSA 2305 Violin-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Bjork, Mark P  
**Description:** Student may contact the instructor or department for information.

MUSA 2306 Viola-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Konkol, Korey Bernard  
**Description:** Student may contact the instructor or department for information.

MUSA 2306 Viola-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Turner, Thomas  
**Description:** Student may contact the instructor or department for information.

MUSA 2307 Cello-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Remenikova, Tanya  
**Description:** Student may contact the instructor or department for information.

MUSA 2308 Double Bass--Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Brown, Christopher Craig  
**Description:** Student may contact the instructor or department for information.

MUSA 2308 Double Bass--Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Clute, James Lewis  
**Description:** Student may contact the instructor or department for information.

MUSA 2309 Flute-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Bogorad, Julia A  
**Description:** Student may contact the instructor or department for information.

MUSA 2309 Flute-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Davis, Immanuel  
**Description:** Student may contact the instructor or department for information.

MUSA 2311 Oboe--Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Reeves, Basil  
**Description:** Student may contact the instructor or department for information.

MUSA 2311 Oboe--Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Snow, John D  
**Description:** Student may contact the instructor or department for information.

MUSA 2312 Clarinet-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Bjork, Mark P  
**Description:** Student may contact the instructor or department for information.

MUSA 2312 Clarinet-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Melfert-Nelson, Karrin Diane  
**Description:** Student may contact the instructor or department for information.

MUSA 2312 Clarinet-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Hara, Burt T  
**Description:** Student may contact the instructor or department for information.

MUSA 2313 Saxophone-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Wyatt, Angela J.  
**Description:** Student may contact the instructor or department for information.

MUSA 2313 Saxophone-Performance Major  
**A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed; prerequisite Audition, dept consent;**  
**Instructor:** Rousseau, Eugene E  
**Description:** Student may contact the instructor or department for information.
MUSA 2314 Bassoon--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Miller Jr., John W
Description: Student may contact the instructor or department for information.

MUSA 2314 Bassoon--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Nielubowski, Norbert John
Description: Student may contact the instructor or department for information.

MUSA 2315 French Horn--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Lemen, Caroline May
Description: Student may contact the instructor or department for information.

MUSA 2315 French Horn--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Gast, Michael C
Description: Student may contact the instructor or department for information.

MUSA 2316 Trumpet--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Baldwin, David B
Description: Student may contact the instructor or department for information.

MUSA 2316 Trumpet--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Bordner, Gary Alan
Description: Student may contact the instructor or department for information.

MUSA 2317 Trombone--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 2317 Trombone--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Ashworth, Thomas Jackson
Description: Student may contact the instructor or department for information.

MUSA 2318 Euphonium--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 2318 Euphonium--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Ashworth, Thomas Jackson
Description: Student may contact the instructor or department for information.

MUSA 2319 Tuba--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 2319 Tuba--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 2321 Percussion--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Hey, Philip C
Description: Student may contact the instructor or department for information.

MUSA 2321 Percussion--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Meza, Fernando A.
Description: Student may contact the instructor or department for information.

MUSA 2321 Percussion--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 2321 Percussion--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Yeager, Steven Michael
Description: Student may contact the instructor or department for information.

MUSA 2322 Harp--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Kienzle, Kathy
Description: Student may contact the instructor or department for information.

MUSA 2323 Guitar--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
Instructor: Flegel, James F
Description: Student may contact the instructor or department for information.

MUSA 2323 Guitar--Performance Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent;
University of Minnesota - Course Guide for Twin Cities Campus

Instructor: Van, Jeffrey Wykie
Description: Student may contact the instructor or department for information.

MUSA 3101 Piano: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Osterman, Jennifer J
Description: Student may contact the instructor or department for information.

MUSA 3101 Piano: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Hill, Hiyas Alejo
Description: Student may contact the instructor or department for information.

MUSA 3101 Piano: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Karelse, Elizabeth Wilhelmina
Description: Student may contact the instructor or department for information.

MUSA 3101 Piano: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Veiler, Marina
Description: Student may contact the instructor or department for information.

MUSA 3101 Piano: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Teitler, Daniel Jeffrey
Description: Student may contact the instructor or department for information.

MUSA 3102 Harpsichord: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Billmeyer, Dean W
Description: Student may contact the instructor or department for information.

MUSA 3103 Organ: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Billmeyer, Dean W
Description: Student may contact the instructor or department for information.

MUSA 3104 Voice: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Noonan, Noelle
Description: Student may contact the instructor or department for information.

MUSA 3104 Voice: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Schoenecker, Ann Elise
Description: Student may contact the instructor or department for information.

MUSA 3105 Violin: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Kim, Young-Nam
Description: Student may contact the instructor or department for information.

MUSA 3105 Violin: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Moiseeva, Natalia
Description: Student may contact the instructor or department for information.

MUSA 3106 Viola: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Petraborg, Kirsti Johanna
Description: Student may contact the instructor or department for information.

MUSA 3106 Viola: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Knoepfel, Justin C
Description: Student may contact the instructor or department for information.

MUSA 3107 Cello: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Alvarez, Ramiro R
Description: Student may contact the instructor or department for information.

MUSA 3107 Cello: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Alvarez, Ramiro R
Description: Student may contact the instructor or department for information.

MUSA 3108 Double Bass: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Clute, James Lewis
Description: Student may contact the instructor or department for information.

MUSA 3109 Flute: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: McNamara, Erica Lynne
Description: Student may contact the instructor or department for information.

MUSA 3109 Flute: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent;
Instructor: Wilson, Christina D
Description: Student may contact the instructor or department for information.

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MUSA 3111 Oboe: Elective
A-F only, 2 credit(s), max credits 16, 8 repeats allowed;
prereq dept consent ;
Instructor: McKean, Caitlin Patricia
Description: Student may contact the instructor or department for information.

MUSA 3112 Clarinet: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Chung, Min-jung
Description: Student may contact the instructor or department for information.

MUSA 3113 Saxophone: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Dromgold, Allison Frances
Description: Student may contact the instructor or department for information.

MUSA 3114 Bassoon: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Kern, Stacy J
Description: Student may contact the instructor or department for information.

MUSA 3115 French Horn: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Wolf, Jenna M
Description: Student may contact the instructor or department for information.

MUSA 3116 Trumpet: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
Instructor: Anderson, Matthew Douglas
Description: Student may contact the instructor or department for information.

MUSA 3116 Trumpet: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Jameson, Aaron L
Description: Student may contact the instructor or department for information.

MUSA 3117 Trombone: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Ball, David Richard
Description: Student may contact the instructor or department for information.

MUSA 3117 Trombone: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Alexander, Joseph Steven
Description: Student may contact the instructor or department for information.

MUSA 3118 Euphonium: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Adams, Jared O
Description: Student may contact the instructor or department for information.

MUSA 3118 Euphonium: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Ball, David Richard
Description: Student may contact the instructor or department for information.

MUSA 3119 Tuba: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 3121 Percussion: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Povolny, John Gregory
Description: Student may contact the instructor or department for information.

MUSA 3121 Percussion: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Carruthers, Krista Lynn Frances
Description: Student may contact the instructor or department for information.

MUSA 3123 Guitar: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Jonker, Jacob Peter
Description: Student may contact the instructor or department for information.

MUSA 3123 Guitar: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Everist, Evan P
Description: Student may contact the instructor or department for information.

MUSA 3123 Guitar: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Carruthers, Krista Lynn Frances
Description: Student may contact the instructor or department for information.

MUSA 3123 Piano--Major
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;
prereq Audition, dept consent ;
Instructor: Shaw, Paul Magnus
Description: Student may contact the instructor or department for information.
MUSA 3301 Piano—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Braginsky, Alexander  
Description: Student may contact the instructor or department for information.

MUSA 3302 Harpsichord—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Billmeyer, Dean W  
Description: Student may contact the instructor or department for information.

MUSA 3303 Organ—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Billmeyer, Dean W  
Description: Student may contact the instructor or department for information.

MUSA 3304 Voice—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Del Santo, Jean Marie  
Description: Student may contact the instructor or department for information.

MUSA 3304 Voice—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Maurice, Glenda A  
Description: Student may contact the instructor or department for information.

MUSA 3304 Voice—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Kierig, Barbara G  
Description: Student may contact the instructor or department for information.

MUSA 3304 Voice—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Zaro-Mullins, Wendy  
Description: Student may contact the instructor or department for information.

MUSA 3305 Violin—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Fleezanis, Joria K  
Description: Student may contact the instructor or department for information.

MUSA 3305 Violin—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: O’Reilly, Sally P  
Description: Student may contact the instructor or department for information.

MUSA 3305 Violin—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Bjork, Mark P  
Description: Student may contact the instructor or department for information.

MUSA 3306 Viola—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Konkol, Korey Bernard  
Description: Student may contact the instructor or department for information.

MUSA 3306 Viola—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Turner, Thomas  
Description: Student may contact the instructor or department for information.

MUSA 3307 Cello—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Remenikova, Tanya  
Description: Student may contact the instructor or department for information.

MUSA 3308 Double Bass—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Brown, Christopher Craig  
Description: Student may contact the instructor or department for information.

MUSA 3308 Double Bass—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Bogorad, Julia A  
Description: Student may contact the instructor or department for information.

MUSA 3309 Flute—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Davis, Immanuel  
Description: Student may contact the instructor or department for information.

MUSA 3309 Flute—Major  
A-F only, 2-4 credit(s), max credits 16, 8 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Reeve, Basil  
Description: Student may contact the instructor or department for information.

MUSA 3311 Oboe—Major  
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Reeve, Basil  
Description: Student may contact the instructor or department for information.

MUSA 3311 Oboe—Major  
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Snow, John D  
Description: Student may contact the instructor or department for information.
MUSA 3312 Clarinet--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Anderson,John Edward
Description: Student may contact the instructor or department for information.

MUSA 3312 Clarinet--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Meffert-Nelson,Karrin Diane
Description: Student may contact the instructor or department for information.

MUSA 3312 Clarinet--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Burt,Harold
Description: Student may contact the instructor or department for information.

MUSA 3313 Saxophone--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Wyatt,Angela J
Description: Student may contact the instructor or department for information.

MUSA 3313 Saxophone--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Rousseau,Eugene E
Description: Student may contact the instructor or department for information.

MUSA 3314 Bassoon--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Miller Jr,John W
Description: Student may contact the instructor or department for information.

MUSA 3314 Bassoon--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Ulery,Charles G
Description: Student may contact the instructor or department for information.

MUSA 3315 French Horn--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Lemen,Caroline May
Description: Student may contact the instructor or department for information.

MUSA 3315 French Horn--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Gast,Michael C
Description: Student may contact the instructor or department for information.

MUSA 3316 Trumpet--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Baldwin,David B
Description: Student may contact the instructor or department for information.

MUSA 3316 Trumpet--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Bordner,Gary Alan
Description: Student may contact the instructor or department for information.

MUSA 3317 Trombone--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Tranter,John Harrington
Description: Student may contact the instructor or department for information.

MUSA 3317 Trombone--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Ashworth,Thomas Jackson
Description: Student may contact the instructor or department for information.

MUSA 3318 Euphonium--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Werden,David Ray
Description: Student may contact the instructor or department for information.

MUSA 3318 Euphonium--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Tranter,John Harrington
Description: Student may contact the instructor or department for information.

MUSA 3319 Tuba--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Tranter,John Harrington
Description: Student may contact the instructor or department for information.

MUSA 3319 Tuba--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Werden,David Ray
Description: Student may contact the instructor or department for information.

MUSA 3319 Tuba--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Campbell,Steven C
Description: Student may contact the instructor or department for information.

MUSA 3321 Percussion--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
Instructor: Hey,Philip C
Description: Student may contact the instructor or department for information.

MUSA 3321 Percussion--Major
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prereq Audition, dept consent;
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Section Description</th>
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<tbody>
<tr>
<td>MUSA 3321</td>
<td>Percussion--Major</td>
<td>A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed;</td>
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<td></td>
<td></td>
<td>prereq Audition, dept consent;</td>
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<td>Instructor: Yeager, Steven Michael</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<td>MUSA 3322</td>
<td>Harp--Major</td>
<td>A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed;</td>
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<td>prereq Audition, dept consent;</td>
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<td>Instructor: Kienzle, Kathy</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<td>MUSA 3323</td>
<td>Guitar--Major</td>
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<td>Instructor: Van, Jeffrey Wylie</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<td>MUSA 5101</td>
<td>Piano: Elective</td>
<td>A-F only, 2 credit(s), max credits 8, 4 repeats allowed;</td>
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<td>prereq dept consent;</td>
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<td>Instructor: Shaw, Paul Magnus</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<td>MUSA 5101</td>
<td>Piano: Elective</td>
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<td>prereq dept consent;</td>
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<td>Instructor: Artyimw, Lydia</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<td>MUSA 5101</td>
<td>Piano: Elective</td>
<td>A-F only, 2 credit(s), max credits 8, 4 repeats allowed;</td>
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<td>Instructor: Shockley, Rebecca P</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<td>MUSA 5102</td>
<td>Harpsichord: Elective</td>
<td>A-F only, 2 credit(s), max credits 8, 4 repeats allowed;</td>
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<td>Instructor: Billmeyer, Dean W</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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<td>MUSA 5103</td>
<td>Organ: Elective</td>
<td>A-F only, 2 credit(s), max credits 8, 4 repeats allowed;</td>
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<td>prereq dept consent;</td>
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<td>Instructor: Billmeyer, Dean W</td>
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<td>Description: Student may contact the instructor or department for information.</td>
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MUSA 5108 Double Bass: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Brown,Christopher Craig
Description: Student may contact the instructor or department for information.

MUSA 5108 Double Bass: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Clute,James Lewis
Description: Student may contact the instructor or department for information.

MUSA 5109 Flute: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Davis,Immanuel
Description: Student may contact the instructor or department for information.

MUSA 5111 Oboe: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Reeve,Basil
Description: Student may contact the instructor or department for information.

MUSA 5111 Oboe: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Snow,John D
Description: Student may contact the instructor or department for information.

MUSA 5112 Clarinet: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Anderson,John Edward
Description: Student may contact the instructor or department for information.

MUSA 5113 Saxophone: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Grivna,Brian A
Description: Student may contact the instructor or department for information.

MUSA 5113 Saxophone: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Rousseau,Eugene E
Description: Student may contact the instructor or department for information.

MUSA 5114 Bassoon: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Miller Jr,John W
Description: Student may contact the instructor or department for information.

MUSA 5114 Bassoon: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Nielubowski, Norbert John
Description: Student may contact the instructor or department for information.

MUSA 5115 French Horn: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Winslow,Herbert Eugene
Description: Student may contact the instructor or department for information.

MUSA 5115 French Horn: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Lemen,Caroline May
Description: Student may contact the instructor or department for information.

MUSA 5116 Trumpet: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Baldwin,David B
Description: Student may contact the instructor or department for information.

MUSA 5116 Trumpet: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Bordner,Gary Alan
Description: Student may contact the instructor or department for information.

MUSA 5117 Trombone: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Ashworth,Thomas Jackson
Description: Student may contact the instructor or department for information.

MUSA 5118 Euphonium: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Tranter,John Harrington
Description: Student may contact the instructor or department for information.

MUSA 5119 Tuba: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Werden,David Ray
Description: Student may contact the instructor or department for information.

MUSA 5119 Tuba: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
Instructor: Tranter,John Harrington
Description: Student may contact the instructor or department for information.

MUSA 5121 Percussion: Elective
A-F only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq dept consent ;
MUSA 5123 Guitar: Elective
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed; 
prereq dept consent ;
Instructor: Meza, Fernando A.
Description: Student may contact the instructor or department for information.

MUSA 5401 Piano--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; 
prereq Audition, dept consent ;
Instructor: Artymiew, Lydia
Description: Student may contact the instructor or department for information.

MUSA 5404 Voice--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; 
prereq Audition, dept consent ;
Instructor: Kierig, Barbara G
Description: Student may contact the instructor or department for information.

MUSA 5405 Viola--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; 
prereq Audition, dept consent ;
Instructor: Shaw, Paul Magnus
Description: Student may contact the instructor or department for information.

MUSA 5406 Viola--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; 
prereq Audition, dept consent ;
Instructor: Bogorad, Julia A
Description: Student may contact the instructor or department for information.

MUSA 5407 Cello--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; 
prereq Audition, dept consent ;
Instructor: De Haan, John
Description: Student may contact the instructor or department for information.

MUSA 5408 Double Bass--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; 
prereq Audition, dept consent ;
Instructor: Bogorad, Julia A
Description: Student may contact the instructor or department for information.

MUSA 5409 Flute--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; 
prereq Audition, dept consent ;
Instructor: O'Reilly, Sally P
Description: Student may contact the instructor or department for information.
MUSA 5409 Flute--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Davis, Immanuel
Description: Student may contact the instructor or department for information.

MUSA 5410 Oboe--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Reeve, Basil
Description: Student may contact the instructor or department for information.

MUSA 5411 Oboe--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Snow, John D
Description: Student may contact the instructor or department for information.

MUSA 5412 Clarinet--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Anderson, John Edward
Description: Student may contact the instructor or department for information.

MUSA 5412 Clarinet--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Meffert-Nelson, Karrin Diane
Description: Student may contact the instructor or department for information.

MUSA 5413 Saxophone--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Grivna, Brian A
Description: Student may contact the instructor or department for information.

MUSA 5413 Saxophone--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Rousseau, Eugene E
Description: Student may contact the instructor or department for information.

MUSA 5414 Bassoon--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Miller Jr, John W
Description: Student may contact the instructor or department for information.

MUSA 5414 Bassoon--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Nielubowski, Norbert John
Description: Student may contact the instructor or department for information.

MUSA 5414 Bassoon--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Ullery, Charles G
Description: Student may contact the instructor or department for information.

MUSA 5415 French Horn--Secondary
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prerequisite Audition, dept consent;
Instructor: Winslow, Herbert Eugene
Description: Student may contact the instructor or department for information.

MUSA 5415 French Horn--Secondary
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prerequisite Audition, dept consent;
Instructor: Lemen, Caroline May
Description: Student may contact the instructor or department for information.

MUSA 5415 French Horn--Secondary
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prerequisite Audition, dept consent;
Instructor: Gast, Michael C
Description: Student may contact the instructor or department for information.

MUSA 5416 Trumpet--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Baldwin, David B
Description: Student may contact the instructor or department for information.

MUSA 5416 Trumpet--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Bordner, Gary Alan
Description: Student may contact the instructor or department for information.

MUSA 5417 Trombone--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Ashworth, Thomas Jackson
Description: Student may contact the instructor or department for information.

MUSA 5418 Baritone--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 5419 Tuba--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 5419 Tuba--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Werden, David Ray
Description: Student may contact the instructor or department for information.

MUSA 5421 Percussion--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Hey, Philip C
Description: Student may contact the instructor or department for information.

MUSA 5421 Percussion--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed; prerequisite Audition, dept consent;
Instructor: Nome, Gary 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 2008

MUSA 5421 Percussion--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed;
prereq Audition, dept consent;
Instructor: Yeager, Steven Michael
Description: Student may contact the instructor or department for information.

MUSA 5421 Percussion--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed;
prereq Audition, dept consent;
Instructor: Kogan, Peter
Description: Student may contact the instructor or department for information.

MUSA 5423 Guitar--Secondary
A-F only, 2-4 credit(s), max credits 24, 12 repeats allowed;
prereq Audition, dept consent;
Instructor: Fiegel, James F
Description: Student may contact the instructor or department for information.

MUSA 8301 Piano--Major
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;
prereq Audition, dept consent;
Instructor: Artymiw, Lydia
Description: Student may contact the instructor or department for information.

MUSA 8301 Piano--Major
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;
prereq Audition, dept consent;
Instructor: Shockley, Rebecca P
Description: Student may contact the instructor or department for information.

MUSA 8301 Piano--Major
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;
prereq Audition, dept consent;
Instructor: Braginsky, Alexander
Description: Student may contact the instructor or department for information.

MUSA 8302 Harpsichord--Major
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;
prereq Audition, dept consent;
Instructor: Billmeyer, Dean W
Description: Student may contact the instructor or department for information.

MUSA 8303 Organ--Major
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;
prereq Audition, dept consent;
Instructor: Billmeyer, Dean W
Description: Student may contact the instructor or department for information.

MUSA 8304 Voice--Major
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;
prereq Audition, dept consent;
Instructor: Del Santo, Jean Marie
Description: Student may contact the instructor or department for information.

MUSA 8304 Voice--Major
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;
prereq Audition, dept consent;
Instructor: Maurice, Glenda A
Description: Student may contact the instructor or department for information.

MUSA 8304 Voice--Major
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;
prereq Audition, dept consent;
Instructor: Kierig, Barbara G
Description: Student may contact the instructor or department for information.

MUSA 8304 Voice--Major
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;
prereq Audition, dept consent;
Instructor: Zaro-Mullins, Wendy
Description: Student may contact the instructor or department for information.

MUSA 8305 Violin--Major
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;
prereq Audition, dept consent;
Instructor: De Haan, John
Description: Student may contact the instructor or department for information.

MUSA 8305 Violin--Major
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;
prereq Audition, dept consent;
Instructor: O'Reilly, Sally P
Description: Student may contact the instructor or department for information.

MUSA 8305 Violin--Major
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;
prereq Audition, dept consent;
Instructor: Bjork, Mark P
Description: Student may contact the instructor or department for information.

MUSA 8306 Viola--Major
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;
prereq Audition, dept consent;
Instructor: Konkol, Korey Bernard
Description: Student may contact the instructor or department for information.

MUSA 8306 Viola--Major
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;
prereq Audition, dept consent;
Instructor: Turner, Thomas
Description: Student may contact the instructor or department for information.
MUSA 8307 Cello--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Remenikova,Tanya  
Description: Student may contact the instructor or department for information.

MUSA 8308 Double Bass--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Brown,Christopher Craig  
Description: Student may contact the instructor or department for information.

MUSA 8308 Double Bass--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Clute,James Lewis  
Description: Student may contact the instructor or department for information.

MUSA 8309 Flute--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Bogorad,Julia A  
Description: Student may contact the instructor or department for information.

MUSA 8309 Flute--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Davis,Immanuel  
Description: Student may contact the instructor or department for information.

MUSA 8311 Oboe--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Reeve,Basil  
Description: Student may contact the instructor or department for information.

MUSA 8311 Oboe--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Snow,John D  
Description: Student may contact the instructor or department for information.

MUSA 8312 Clarinet--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Anderson,John Edward  
Description: Student may contact the instructor or department for information.

MUSA 8312 Clarinet--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Meffert-Nelson,Karrin Diane  
Description: Student may contact the instructor or department for information.

MUSA 8312 Clarinet--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Hara,Burt T  
Description: Student may contact the instructor or department for information.

MUSA 8313 Saxophone--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Wyatt,Angela J.  
Description: Student may contact the instructor or department for information.

MUSA 8313 Saxophone--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Rousseau,Eugene E  
Description: Student may contact the instructor or department for information.

MUSA 8314 Bassoon--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Miller Jr,John W  
Description: Student may contact the instructor or department for information.

MUSA 8314 Bassoon--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Nielyubowski,Norbert John  
Description: Student may contact the instructor or department for information.

MUSA 8314 Bassoon--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Ullery,Charles G  
Description: Student may contact the instructor or department for information.

MUSA 8315 French Horn--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Lemen,Caroline May  
Description: Student may contact the instructor or department for information.

MUSA 8315 French Horn--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Gast,Michael C  
Description: Student may contact the instructor or department for information.

MUSA 8316 Trumpet--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Baldwin,David B  
Description: Student may contact the instructor or department for information.

MUSA 8316 Trumpet--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Bordner,Gary Alan  
Description: Student may contact the instructor or department for information.

MUSA 8317 Trombone--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Tranter,John Harrington  
Description: Student may contact the instructor or department for information.

MUSA 8317 Trombone--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;  
Instructor: Ashworth,Thomas Jackson  
Description: Student may contact the instructor or department for information.

MUSA 8318 Euphonium--Major  
A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;  
prereq Audition, dept consent;
### MUSA 8318 Euphonium--Major
- **A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;**
- **prereq Audition, dept consent;**
- **Instructor:** Ashworth, Thomas Jackson
- **Description:** Student may contact the instructor or department for information.

### MUSA 8318 Euphonium--Major
- **A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;**
- **prereq Audition, dept consent;**
- **Instructor:** Werden, David Ray
- **Description:** Student may contact the instructor or department for information.

### MUSA 8319 Tuba--Major
- **A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;**
- **prereq Audition, dept consent;**
- **Instructor:** Tranter, John Harrington
- **Description:** Student may contact the instructor or department for information.

### MUSA 8319 Tuba--Major
- **A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;**
- **prereq Audition, dept consent;**
- **Instructor:** Tranter, John Harrington
- **Description:** Student may contact the instructor or department for information.

### MUSA 8319 Tuba--Major
- **A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;**
- **prereq Audition, dept consent;**
- **Instructor:** Tranter, John Harrington
- **Description:** Student may contact the instructor or department for information.

### MUSA 8321 Percussion--Major
- **A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;**
- **prereq Audition, dept consent;**
- **Instructor:** Hey, Philip C
- **Description:** Student may contact the instructor or department for information.

### MUSA 8321 Percussion--Major
- **A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;**
- **prereq Audition, dept consent;**
- **Instructor:** Hey, Philip C
- **Description:** Student may contact the instructor or department for information.

### MUSA 8321 Percussion--Major
- **A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;**
- **prereq Audition, dept consent;**
- **Instructor:** Meza, Fernando A.
- **Description:** Student may contact the instructor or department for information.

### MUSA 8321 Percussion--Major
- **A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;**
- **prereq Audition, dept consent;**
- **Instructor:** Meza, Fernando A.
- **Description:** Student may contact the instructor or department for information.

### MUSA 8321 Percussion--Major
- **A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;**
- **prereq Audition, dept consent;**
- **Instructor:** Yeager, Steven Michael
- **Description:** Student may contact the instructor or department for information.

### MUSA 8321 Percussion--Major
- **A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;**
- **prereq Audition, dept consent;**
- **Instructor:** Kogan, Peter
- **Description:** Student may contact the instructor or department for information.

### MUSA 8322 Harp--Major
- **A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;**
- **prereq Audition, dept consent;**
- **Instructor:** Kienzle, Kathy
- **Description:** Student may contact the instructor or department for information.

### MUSA 8323 Guitar--Major
- **A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;**
- **prereq Audition, dept consent;**
- **Instructor:** Van, Jeffrey Wylie
- **Description:** Student may contact the instructor or department for information.

### MUSA 8324 Accompanying/Coaching
- **A-F only, 2-4 credit(s), max credits 48, 24 repeats allowed;**
- **prereq Audition, dept consent;**
- **Instructor:** Lovelace, Timothy
- **Description:** Student may contact the instructor or department for information.

### MUSA 8501 Piano: Beyond Requirement
- **A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;**
- **prereq instr consent;**
- **Instructor:** Billmeyer, Dean W
- **Description:** Student may contact the instructor or department for information.

### MUSA 8501 Piano: Beyond Requirement
- **A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;**
- **prereq instr consent;**
- **Instructor:** Billmeyer, Dean W
- **Description:** Student may contact the instructor or department for information.

### MUSA 8501 Piano: Beyond Requirement
- **A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;**
- **prereq instr consent;**
- **Instructor:** Billmeyer, Dean W
- **Description:** Student may contact the instructor or department for information.

### MUSA 8501 Piano: Beyond Requirement
- **A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;**
- **prereq instr consent;**
- **Instructor:** Billmeyer, Dean W
- **Description:** Student may contact the instructor or department for information.

### MUSA 8501 Piano: Beyond Requirement
- **A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;**
- **prereq instr consent;**
- **Instructor:** Billmeyer, Dean W
- **Description:** Student may contact the instructor or department for information.

### MUSA 8503 Organ: Beyond Requirement
- **A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;**
- **prereq instr consent;**
- **Instructor:** Del Santo, Jean Marie
- **Description:** Student may contact the instructor or department for information.

### MUSA 8504 Voice: Beyond Requirement
- **A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;**
- **prereq instr consent;**
- **Instructor:** Del Santo, Jean Marie
- **Description:** Student may contact the instructor or department for information.

### MUSA 8504 Voice: Beyond Requirement
- **A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;**
- **prereq instr consent;**
- **Instructor:** Del Santo, Jean Marie
- **Description:** Student may contact the instructor or department for information.

### MUSA 8504 Voice: Beyond Requirement
- **A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;**
- **prereq instr consent;**
- **Instructor:** Del Santo, Jean Marie
- **Description:** Student may contact the instructor or department for information.

### MUSA 8504 Voice: Beyond Requirement
- **A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;**
- **prereq instr consent;**
- **Instructor:** Del Santo, Jean Marie
- **Description:** Student may contact the instructor or department for information.

### MUSA 8504 Voice: Beyond Requirement
- **A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;**
- **prereq instr consent;**
- **Instructor:** Del Santo, Jean Marie
- **Description:** Student may contact the instructor or department for information.

### MUSA 8504 Voice: Beyond Requirement
- **A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;**
- **prereq instr consent;**
- **Instructor:** Del Santo, Jean Marie
- **Description:** Student may contact the instructor or department for information.

### MUSA 8504 Voice: Beyond Requirement
- **A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;**
- **prereq instr consent;**
- **Instructor:** Del Santo, Jean Marie
- **Description:** Student may contact the instructor or department for information.

### MUSA 8504 Voice: Beyond Requirement
- **A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;**
- **prereq instr consent;**
- **Instructor:** Del Santo, Jean Marie
- **Description:** Student may contact the instructor or department for information.
MUSA 8504 Voice: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Bogorad,Julia A  
Description: Student may contact the instructor or department for information.

MUSA 8505 Violin: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: De Haan,John  
Description: Student may contact the instructor or department for information.

MUSA 8505 Violin: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Flecsanis,Joria K  
Description: Student may contact the instructor or department for information.

MUSA 8505 Violin: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: O'Reilly,Sally P  
Description: Student may contact the instructor or department for information.

MUSA 8505 Violin: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Bjork,Mark P  
Description: Student may contact the instructor or department for information.

MUSA 8506 Viola: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Konkol,Korey Bernard  
Description: Student may contact the instructor or department for information.

MUSA 8506 Viola: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Turner,Thomas  
Description: Student may contact the instructor or department for information.

MUSA 8507 Cello: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Remenikova,Tanya  
Description: Student may contact the instructor or department for information.

MUSA 8508 Double Bass: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Brown,Christopher Craig  
Description: Student may contact the instructor or department for information.

MUSA 8508 Double Bass: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Clute,James Lewis  
Description: Student may contact the instructor or department for information.

MUSA 8509 Flute: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Bogorad,Julia A  
Description: Student may contact the instructor or department for information.

MUSA 8509 Flute: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Davis,Immanuel  
Description: Student may contact the instructor or department for information.

MUSA 8511 Oboe: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Snow,John D  
Description: Student may contact the instructor or department for information.

MUSA 8512 Clarinet: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Meffert-Nelson,Karrin Diane  
Description: Student may contact the instructor or department for information.

MUSA 8512 Clarinet: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Hara,Burt T  
Description: Student may contact the instructor or department for information.

MUSA 8513 Saxophone: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Rousseau,Eugene E  
Description: Student may contact the instructor or department for information.

MUSA 8514 Bassoon: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Nieluobowski,Norbert John  
Description: Student may contact the instructor or department for information.

MUSA 8514 Bassoon: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;  
Instructor: Ullery,Charles G  
Description: Student may contact the instructor or department for information.

MUSA 8515 French horn: Beyond Requirement  
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;  
prereq instr consent;
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 6/9/2008 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 2008

MUSA 8515 French horn: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Lemen, Caroline May
Description: Student may contact the instructor or department for information.

MUSA 8516 Trumpet: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 8517 Trombone: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Ashworth, Thomas Jackson
Description: Student may contact the instructor or department for information.

MUSA 8518 Euphonium: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 8519 Tuba: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 8520 Baritone: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Tranter, John Harrington
Description: Student may contact the instructor or department for information.

MUSA 8521 Percussion: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Yeager, Steven Michael
Description: Student may contact the instructor or department for information.

MUSA 8522 Harp: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Meza, Fernando A.
Description: Student may contact the instructor or department for information.

MUSA 8523 Guitar: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Lovelace, Timothy
Description: Student may contact the instructor or department for information.

MUSA 8524 Accompanying/Coaching: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Addo, Akosua
Description: Student may contact the instructor or department for information.

MUSA 8525 Accompanying/Coaching: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Addo, Akosua
Description: Student may contact the instructor or department for information.

MUSA 8526 Accompanying/Coaching: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Addo, Akosua
Description: Student may contact the instructor or department for information.

MUSA 8527 Accompanying/Coaching: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Addo, Akosua
Description: Student may contact the instructor or department for information.

MUSA 8528 Accompanying/Coaching: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Addo, Akosua
Description: Student may contact the instructor or department for information.

MUSA 8529 Accompanying/Coaching: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Addo, Akosua
Description: Student may contact the instructor or department for information.

MUSA 8530 Accompanying/Coaching: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Addo, Akosua
Description: Student may contact the instructor or department for information.

MUSA 8531 Accompanying/Coaching: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Addo, Akosua
Description: Student may contact the instructor or department for information.

MUSA 8532 Accompanying/Coaching: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Addo, Akosua
Description: Student may contact the instructor or department for information.

MUSA 8533 Accompanying/Coaching: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Addo, Akosua
Description: Student may contact the instructor or department for information.

MUSA 8534 Accompanying/Coaching: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Addo, Akosua
Description: Student may contact the instructor or department for information.

MUSA 8535 Accompanying/Coaching: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Addo, Akosua
Description: Student may contact the instructor or department for information.

MUSA 8536 Accompanying/Coaching: Beyond Requirement
A-F only, 2-4 credit(s), max credits 8, 4 repeats allowed;
prereq instr consent;
Instructor: Addo, Akosua
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 repeat 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 8119 Advanced Applications of Qualitative Research Methods
A-F only, 3 credit(s); prereq instr consent;
Instructor: Lipscomb, Scott D.
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 repeats 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 repeats allowed;
prereq dept consent;
Instructor: Lipscomb, Scott D.
Description: Student may contact the instructor or department for information.

Nanoparticle Science and Engineering
125 Mechanical Engineering

NPSE 8002 Nanoparticle Science and Engineering Laboratory
A-F only, 3 credit(s); prereq 8001, [IT grad student or instr consent;
Instructor: Aydil, Eray S
Description: Student may contact the instructor or department for information.

NPSE 8101 Nanoparticle Science and Engineering Seminar
S-N only, 1 credit(s); prereq IT grad student or;
Instructor: Kortshagen, Uwe Richard
Description: Student may contact the instructor or department for information.

Naval Science
203 Armory

NAV 1000 Professional Training in Naval Science
S-N only, 1 credit(s); prereq enrolled in NROTC;
Instructor: Fenwick, William B
Description: Student may contact the instructor or department for information.

NAV 1102 Seapower and Maritime Affairs
A-F only, 3 credit(s);
Instructor: McFadden, Taeko Elizabeth
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: Fenwick, William B
Description: Student may contact the instructor or department for information.

NAV 2201 Ship Systems I: Naval Engineering
A-F only, 3 credit(s);
Instructor: Schulze, Logan K
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: Fenwick, William B  
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: Gonzalez, Luis Angel  
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: Fenwick, William B  
Description: Student may contact the instructor or department for information.

NAV 4402W Leadership and Ethics  
A-F only, 3 credit(s); prereq 4401; Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive;  
Instructor: Nestor, Duane  
Description: Student may contact the instructor or department for information.

**Neuroscience**  
6-145 Jackson Hall

NSC 5202 Theoretical Neuroscience: Systems and Information Processing  
3 credit(s); prereq [3101, 3102W] recommended;  
Instructor: Redish, David  
Description: Student may contact the instructor or department for information.

NSC 5661 Behavioral Neuroscience  
A-F only, 3 credit(s); prereq Grad NSc major or grad NSc minor or instr consent;  
Instructor: Mesce, Karen A  
Description: The neural coding and representation of movement parameters, and the neural mechanisms underlying higher order processes, such as memorization, memory scanning, and mental rotation are discussed. Emphasis is placed on (a) experimental psychological studies in human subjects, (b) functional neuroimaging studies in human subjects, including experiments using positron emission tomography (PET), (MEG), etc., (c) single cell recording experiments in subhuman primates, and (d) artificial neural network modeling.

NSC 8216 Selected Topics in Autonomic and Neuroendocrine Regulation  
S-N only, 1 credit(s); prereq instr consent; Credit will not be granted if credit has been received for: PHSL 8216;  
Instructor: Engeland, William C  
Description: Student may contact the instructor or department for information.

NSC 8217 Systems and Computational Neuroscience  
S-N only, 2 credit(s); prereq 5561 or instr consent;  
Instructor: Ghose, Geoffrey M  
Description: Student may contact the instructor or department for information.

NSC 8320 Readings in Neurobiology  
1-4 credit(s), max credits 4, 4 repeats allowed;  
Instructor: McLoon, Steven C.  
Description: Student may contact the instructor or department for information.

NSC 8320 Readings in Neurobiology  
1-4 credit(s), max credits 4, 4 repeats allowed;  
Instructor: Fairbanks, Carolyn Ann  
Description: Student may contact the instructor or department for information.

NSC 8320 Readings in Neurobiology  
1-4 credit(s), max credits 4, 4 repeats allowed;  
Instructor: Thomas, Kathleen M  
Description: Student may contact the instructor or department for information.

NSC 8320 Readings in Neurobiology  
1-4 credit(s), max credits 4, 4 repeats allowed;  
Instructor: Pardo, Jose Victor  
Description: Student may contact the instructor or department for information.

NSC 8320 Readings in Neurobiology  
1-4 credit(s), max credits 4, 4 repeats allowed;  
Instructor: Kofuji, Paulo  
Description: Student may contact the instructor or department for information.

NSC 8320 Readings in Neurobiology  
1-4 credit(s), max credits 4, 4 repeats allowed;  
Instructor: Yuan, Li Lian  
Description: Student may contact the instructor or department for information.

NSC 8321 Career Skills and Understanding Responsibilities as a Neuroscientist  
S-N only, 0.5 credit(s), max credits 2, 4 repeats allowed;  
prereq Neuroscience grad major or instr consent;  
Instructor: Engeland, William C  
Description: Student may contact the instructor or department for information.

NSC 3102W Introduction to Neuroscience II: Biological Basis of Behavior  
A-F only, 3 credit(s); prereq 3101 or BIOL 3101 or PHSL 3101; grade of at least B+ in 3101 recommended; Meets CLE req of Writing Intensive;  
Instructor: Ghose, Geoffrey M  
Description: This is the second of the introductory neuroscience courses. It introduces fundamental concepts in systems and behavioral neurosciences with emphasis on the neural circuits underlying perception and sensorimotor integration. Lectures will examine the neural basis of specific behaviors arising from the oculomotor, visual and auditory systems. Topics include: retinal processing, functional organization in the cerebral cortex, and neural circuit development. Students must learn to read scientific papers, and to understand the main ideas well enough to synthesize them and communicate them both orally and in writing. The course is writing intensive: exams are in essay format, and a 10-15 page term paper are required. The course is required for students majoring in neuroscience but is open to all students with the required prerequisites. The course consists of two hours of lecture and one hour of discussion per week and is taught by Professors Ghose, Miller, Masino, and Soechting.  
Style: 67% Lecture, 33% Discussion.  
Grading: 25% mid exam, 25% final exam, 15% reports/papers, 5% in-class presentation, 5% class participation, 25% other evaluation. There are 3 non-cumulative exams (each worth 25%).  
Exam Format: short answer/essay
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

NSCI 4793W Directed Studies: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 repeats 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 4794W Directed Research: Writing Intensive
S-N only, 1-6 credit(s), max credits 42, 7 repeats 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: This course consists of laboratory or field investigation of selected areas of research, done under the direction of a faculty mentor. The course is writing intensive. Students will have the opportunity to present the results of their research in the format of a scientific article. They will learn to survey the current literature in their area of research, organize data, use statistical analyses if appropriate, and effectively communicate the results of their experiments through construction of tables, graphs, and other figures. Also, students will draw conclusions from their data and use persuasive arguments to convince readers of their interpretations of the data. Students will be required to write a 10-15 page paper in the format of a scientific article. This course is graded pass/fail, and the final grade is based on successful completion of the article.
Grading: 100% reports/papers.

NSCI 4993 Directed Studies
S-N only, 1-7 credit(s), max credits 7, 7 repeats 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.

NSCI 4994 Directed Research
S-N only, 1-6 credit(s), max credits 42, 7 repeats 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.

NSCI 5110 Dental Neuroscience for Graduate Students
A-F only, 2 credit(s); prereq credit will not be granted if credit received for: 6110; Biol 3021, Biol 4004, instr consent; intended for grad students who require a comprehensive grad-level neuroscience course; Instructor: Engeland, William C
Description: Student may contact the instructor or department for information.

NSCI 5110 Dental Neuroscience for Dental Students
A-F only, 2 credit(s); prereq credit will not be granted if credit received for: 5110; Dental student; Instructor: Engeland, William C
Description: Student may contact the instructor or department for information.

NSCI 6110 Norwegian Language for Non-Native Speakers
NOR 1002 Beginning Norwegian
5 credit(s); prereq 1001; Credit will not be granted if credit has been received for: NOR 4002; Instructor: STAFF
Description: The course continues the beginning language students’ acquisition of proficiency in all four areas of Norwegian: listening, speaking, reading and writing. Students will also gain knowledge of Norwegian culture through various means, including: the required text, “PA VEI” and the CD and grammar diskette which accompany the workbook. Lecture, class discussions and classroom exercises will be conducted in Norwegian. 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 the description for Nor 4002 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: 8% mid exam, 20% final exam, 35% quizzes, 14% class participation, 25% other evaluation. 14% homework, 6% skit, 5% journal
Exam Format: structured exercises in all 4 modalities and grammar, pronunciation, vocabulary and culture

NSCI 6112 Medical Neuroscience for Professional Students
S-N only, 5 credit(s); prereq Biol 3021, Biol 4004, instr consent; intended for non-medical professional students; Instructor: Giesler Jr, Glenn J
Description: Student may contact the instructor or department for information.

Norwegian
205 Folwell Hall
NOR 1004 Intermediate Norwegian
5 credit(s); prereq 1103; Credit will not be granted if credit has been received for: NOR 4004; Instructor: STAFF
Description: This course continues the presentation of Norwegian language skills begun in 1001-2. It is designed to review and expand your knowledge of Norwegian language structure, and to increase your comprehension and...
Communicating abilities in the language. The primary text for the course is Stein pa stein by Ellingsen and MacDonald with an accompanying workbook with CD and grammar diskette. Students should expect to prepare at home for proficiently and actively participating in large and small-group interactive communicative activities in class. At this level, you will be reading and listening to more advanced authentic Norwegian material and you will expand and refine your vocabulary and your knowledge of grammar. The 1003-1004 course sequence will prepare you for the Graduation Proficiency Test (GPT) that you will take toward the end of 1004. See the description for Nor 4004 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 

**NOR 4002 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 1002; 

**Instructor:** STAFF

**Description:** See the course description for Nor 1002. 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 1002 under the number Nor 4002 for 2 credits. Contact the department office, 612-625-2080, for a permission number.

**Style:** skills and presentations 

**Grading:** 6% mid exam, 20% final exam, 34% quizzes, 14% class participation, 25% other evaluation. 6% skit, 5% journal, 14% homework 

**NOR 4004 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 1004; 

**Instructor:** STAFF

**Description:** See the course description for Nor 4004. 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 1004 under the number Nor 4004 for 2 credits. Contact the department office, 612-625-2080, for a permission number.

**Grading:** 6% mid exam, 20% final exam, 34% quizzes, 14% class participation, 25% other evaluation. 6% skit, 5% journal, 14% homework 

**Nursing 6-101 Weaver-Densford Hall**

**NURS 3702 Foundations of Professional Nursing**

A-F only, 3 credit(s); prereq Nursing student or instr consent; 

**Instructor:** Daniels, Jessie S

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

**NURS 4502 Clinical Immersion**

A-F only, 6 credit(s); prereq 3702, 3704, 3706, 4200, 4203, [4205V or 4205W], 4322, 4326, 4500, 4504; 

**Instructor:** Dunlap, Karen J

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

**NURS 4504 Professional Issues**

A-F only, 2 credit(s); prereq Concurrent registration is required (or allowed) in 4500; 

**Instructor:** Herrick, Linda Marie

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

**NURS 5031 Human Response to Health and Illness: Adults and Elders**

A-F only, 6 credit(s); prereq Professional master of nursing [MN] student; 

**Instructor:** Kessler, Penny

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

**NURS 5032 Human Response to Health and Illness: Children and Childbearing Families**

A-F only, 6 credit(s); prereq Professional master of nursing [MN] student; 

**Instructor:** Frisvold, Melissa Hanner

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

**NURS 5040H Seeking Solutions to Global Health Issues**

3 credit(s); prereq Grad student or sr Nursing Honors student or upper div Honors or instr consent ; Meets CLE req of International Perspect Theme; 

**Instructor:** Robertson, Cheryl Lee

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

**NURS 5113 Web-based Teaching and Learning Strategies**

S-N only, 2 credit(s); 

**Instructor:** Cohen, Bradley A

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

**NURS 5115 Interprofessional Health Care Informatics**

A-F only, 3 credit(s); 

**Instructor:** Westra, Bonnie L.

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

**NURS 5183 Scholarly Leadership**

S-N only, 1 credit(s); prereq Advanced doctoral nursing student, instr consent ; 

**Instructor:** Edwardsson, Sandra R

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

**NURS 5200 Holistic Health Assessment and Therapeutics for Advanced Practice Nurses**

3 credit(s); prereq Nursing grad student or professional master of nursing [MN] student; 

**Instructor:** Sandve, Mary

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

**NURS 5224 Clinical Pharmacotherapeutics**

3 credit(s); prereq Nursing grad student in advanced practice in primary care, physiology course, instr consent; 

**Instructor:** Benbenek, Mary Mescher

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

**NURS 5224 Clinical Pharmacotherapeutics**

3 credit(s); prereq Nursing grad student in advanced practice in primary care, physiology course, instr consent; 

**Instructor:** Bata Jones, Bonnie Rose

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

**NURS 5501 Professional Issues in Nurse-Midwifery**

S-N only, 1-2 credit(s), max credits 2, 1 repeat allowed; prereq Nurs grad major, instr consent; 

**Instructor:** Ringdahl, Deborah Rene

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

**NURS 5800 Nursing Topics**
NURS 5800 Nursing Topics
1-4 credit(s), max credits 8, 4 repeats allowed; prereq instr consent;
Instructor: O'Boyle, Carol
Description: Student may contact the instructor or department for information.

NURS 5800 Nursing Topics
1-4 credit(s), max credits 8, 4 repeats allowed; prereq instr consent;
Instructor: Kaas, Merrie Jean
Description: Student may contact the instructor or department for information.

NURS 5800 Nursing Topics
1-4 credit(s), max credits 8, 4 repeats allowed; prereq instr consent;
Instructor: Lynch, Nicole Lynn
Description: Student may contact the instructor or department for information.

NURS 58100 Nursing Topics
1-4 credit(s), max credits 8, 4 repeats allowed; prereq instr consent;
Instructor: Kaas, Merrie Jean
Description: Student may contact the instructor or department for information.

NURS 5830 Advanced Clinical Nursing
1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nursing major, instr consent;
Instructor: Rowan, Mary M.
Description: Student may contact the instructor or department for information.

NURS 5910 Nurse Anesthesia Care: Patients With Cardiothoracic Problems
A-F only, 2 credit(s); prereq 5222, 5224, 5228, 5901, Phsl 5115;
Instructor: Peterson, Garrett Joel
Description: Student may contact the instructor or department for information.

NURS 5925 Grant Writing and Critique
1 credit(s); prereq Grad student or instr consent;
Instructor: Leonard, Barbara J
Description: Student may contact the instructor or department for information.

NURS 5940 Contemporary Issues in Nurse Anesthesia
S-N only, 2 credit(s); prereq 5930;
Instructor: Fagerlund, Kathleen A
Description: Student may contact the instructor or department for information.

NURS 5942 Nurse Anesthesia Practicum B
S-N only, 5 credit(s); prereq 5941;
Instructor: Mund, Angela Renae
Description: Student may contact the instructor or department for information.

NURS 6200 Science of Nursing Intervention
A-F only, 3 credit(s); prereq Admission to DNP Program;
Instructor: Mueller, Christine Ann
Description: Student may contact the instructor or department for information.

NURS 7101 DNP Seminar II
S-N only, 4 credit(s); prereq Admission to DNP program;
Instructor: White, Kathryn W
Description: Student may contact the instructor or department for information.

NURS 8100 The Discipline of Nursing
3 credit(s); prereq Grad nurs major or instr consent;
Instructor: Monsen PhD, Karen A
Description: Student may contact the instructor or department for information.

NURS 8134 Interventions and Outcomes Research
A-F only, 3 credit(s); prereq 8121, PhD student, instr consent;
Instructor: Henly, Susan J S
Description: Student may contact the instructor or department for information.

NURS 8140 Moral and Ethical Positions in Nursing
3 credit(s); prereq Grad nurs major or instr consent;
Instructor: Duckett, Laura J
Description: Student may contact the instructor or department for information.

NURS 8140 Moral and Ethical Positions in Nursing
3 credit(s); prereq Grad nurs major or instr consent;
Instructor: Liaschenko, Joan
Description: Student may contact the instructor or department for information.

NURS 8170 Research in Nursing
3 credit(s); prereq concurrent enrollment 8170 or inferential stat course taken within two yrs;
Instructor: Kerr, Madeleine June
Description: Student may contact the instructor or department for information.

NURS 8171 Qualitative Research Design and Methods
3-4 credit(s), max credits 4, 1 repeat allowed; prereq 8170 or equiv;
Instructor: Peden-McAlpine, Cynthia Jeanne
Description: Student may contact the instructor or department for information.

NURS 8173 Principles and Methods of Implementing Research
3 credit(s); prereq 8114 or other 8xxx grad research methods course, 2 grad stat courses; Credit will not be granted if credit has been received for: SAPH 8173;
Instructor: Gross, Cynthia R
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Leonard, Barbara J
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Halcon PhD, Linda Luciente
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Lindquist, Ruth Ann
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Henly, Susan J S
Description: Student may contact the instructor or department for information.
NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Edwardson,Sandra R
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Westra,Bonnie L.
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Lindeke PhD,Linda L
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Duckett,Laura J
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Fulkerson,Jayne
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Juve,Catherine
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Garwick,Ann Elizabe
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Rowan, Mary M.
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Avery,Melissa D
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Bearinger,Linda Holm
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Treat-Jacobson PhD,Diane Jeanette
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Chlan,Linda Lee
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Sieving,Renee Evangeline
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Blisa PhD,Donna Zimmaro
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Kubik,Martha Young
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Kaas,Merrie Jean
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Gross,Cynthia R
Description: Student may contact the instructor or department for information.
NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Wyman, Jean Frances
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Liaschenko, Joan
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Mueller, Christine Ann
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Disch, Joanne M
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Hansen, Helen Elizabeth
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Kerr, Madeleine June
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Moss, JD, PhD, Margaret P
Description: Student may contact the instructor or department for information.

NURS 8177 Advanced Nursing Research Practicum
S-N only, 2 credit(s); prereq [8181 or concurrent enrollment in 8181], PhD nursing student, instr consent, adviser consent;
Instructor: Liaschenko, Joan
Description: Student may contact the instructor or department for information.

NURS 8181 Protection of Research Subjects
1 credit(s); prereq [PhD student or instr consent ];
[[Responsible Conduct of Research I, RCR II] or NIH Web-based course equiv or concurrent];
Instructor: Wyman, Jean Frances
Description: Student may contact the instructor or department for information.

NURS 8182 Policy Implications of Nursing Research
S-N only, 1 credit(s); prereq Nursing doctoral student or instr consent ;
Instructor: Moss, JD, PhD, Margaret P
Description: Student may contact the instructor or department for information.

NURS 8190 Critical Review in Health Research
A-F only, 2 credit(s); prereq Advanced statistics course, instr consent ;
Instructor: Chlan, Linda Lee
Description: Student may contact the instructor or department for information.

NURS 8193 Special Topics in Nursing Research
1-6 credit(s), max credits 6; prereq instr consent ;
Instructor: Leonard, Barbara J
Description: Student may contact the instructor or department for information.

NURS 8193 Special Topics in Nursing Research
1-6 credit(s), max credits 6; prereq instr consent ;
Instructor: Halcon, PhD, Linda Luciente
Description: Student may contact the instructor or department for information.

NURS 8193 Special Topics in Nursing Research
1-6 credit(s), max credits 6; prereq instr consent ;
Instructor: Henly, Susan J S
Description: Student may contact the instructor or department for information.

NURS 8193 Special Topics in Nursing Research
1-6 credit(s), max credits 6; prereq instr consent ;
Instructor: Westra, Bonnie L.
Description: Student may contact the instructor or department for information.

NURS 8193 Special Topics in Nursing Research
1-6 credit(s), max credits 6; prereq instr consent ;
Instructor: Lindquist, Ruth Ann
Description: Student may contact the instructor or department for information.

NURS 8193 Special Topics in Nursing Research
1-6 credit(s), max credits 6; prereq instr consent ;
Instructor: Leonard, Barbara J
Description: Student may contact the instructor or department for information.

NURS 8193 Special Topics in Nursing Research
1-6 credit(s), max credits 6; prereq instr consent ;
Instructor: Krichbaum, Kathleen Elaine
Description: Student may contact the instructor or department for information.

NURS 8193 Special Topics in Nursing Research
1-6 credit(s), max credits 6; prereq instr consent ;
Instructor: Juve, Catherine
Description: Student may contact the instructor or department for information.

NURS 8193 Special Topics in Nursing Research
1-6 credit(s), max credits 6; prereq instr consent ;
Instructor: Rowan, Mary M.
Description: Student may contact the instructor or department for information.

NURS 8193 Special Topics in Nursing Research
1-6 credit(s), max credits 6; prereq instr consent ;
Instructor: Treat-Jacobson, PhD, Diane Jeanette
Description: Student may contact the instructor or department for information.

NURS 8193 Special Topics in Nursing Research
1-6 credit(s), max credits 6; prereq instr consent ;
Instructor: Rowan, Mary M.
Description: Student may contact the instructor or department for information.
NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed; prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
Instructor: Krichbaum,Kathleen Elaine
Description: Student may contact the instructor or department for information.

NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed; prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
Instructor: Duckett,Laura J
Description: Student may contact the instructor or department for information.
NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed;
prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
Instructor: Wachdorf,Cecilia M
Description: Student may contact the instructor or department for information.

NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed;
prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
Instructor: O'Conner-Von PhD,Susan K
Description: Student may contact the instructor or department for information.

NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed;
prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
Instructor: Treat-Jacobson PhD,Diane Jeanette
Description: Student may contact the instructor or department for information.

NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed;
prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
Instructor: Chian,Linda Lee
Description: Student may contact the instructor or department for information.

NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed;
prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
Instructor: Gaugler PhD,Joseph E
Description: Student may contact the instructor or department for information.

NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed;
prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
Instructor: Fagerlund,Kathleen A
Description: Student may contact the instructor or department for information.

NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed;
prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
Instructor: Sieving,Renee Evangeline
Description: Student may contact the instructor or department for information.

NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed;
prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
Instructor: Bliss PhD,Donna Zimmaro
Description: Student may contact the instructor or department for information.

NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed;
prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
Instructor: Kubik,Martha Young
Description: Student may contact the instructor or department for information.

NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed;
prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
Instructor: Gross,Cynthia R
Description: Student may contact the instructor or department for information.

NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed;
prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
Instructor: Peden-McAlpine,Cynthia Jeanne
Description: Student may contact the instructor or department for information.

NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed;
prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
Instructor: Wayman,Jean Frances
Description: Student may contact the instructor or department for information.

NURS 8194 Problems in Nursing - Plan B
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed;
prereq [8100 or concurrent enrollment 8100], [8170 or concurrent enrollment 8170], instr consent;
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>NURS 8194</td>
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<tr>
<td>concurrent enrollment 8170], instr consent;</td>
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<tr>
<td>Instructor: Disch, Joanne M</td>
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<tr>
<td>Description: Student may contact the instructor or department for information.</td>
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</tbody>
</table>

| NURS 8194  | Problems in Nursing - Plan B                                                 |
| S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed; | |
| prereq [8100 or concurrent enrollment 8100], [8170 or | |
| concurrent enrollment 8170], instr consent; | |
| Instructor: Hansen, Helen Elizabeth |
| Description: Student may contact the instructor or department for information. |

| NURS 8194  | Problems in Nursing - Plan B                                                 |
| S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed; | |
| prereq [8100 or concurrent enrollment 8100], [8170 or | |
| concurrent enrollment 8170], instr consent; | |
| Instructor: Kerr, Madeleine June |
| Description: Student may contact the instructor or department for information. |

| NURS 8194  | Problems in Nursing - Plan B                                                 |
| S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed; | |
| prereq [8100 or concurrent enrollment 8100], [8170 or | |
| concurrent enrollment 8170], instr consent; | |
| Instructor: Liaschenko, Joan |
| Description: Student may contact the instructor or department for information. |

| NURS 8241  | Health Care Leadership for a Changing World                                  |
| 2 credit(s), max credits 3, 1 repeat allowed; prereq AHC grad student or instr consent; | |
| Instructor: Hansen, Helen Elizabeth |
| Description: Student may contact the instructor or department for information. |

| NURS 8242  | Population Focused Health Care Delivery Systems                              |
| 2 credit(s); prereq Grad nurs student or instr consent; | |
| Instructor: Herrick, Linda Marie |
| Description: Student may contact the instructor or department for information. |

| NURS 8314  | Intervention Models for Adults/Elders with Chronic Health Conditions         |
| A-F only, 3-4 credit(s), max credits 4, 1 repeat allowed; | |
| prereq 5222, 5800, 8100, 8140, 8170, 8314, 8315; | |
| Instructor: Zaccagnini, Mary E |
| Description: Student may contact the instructor or department for information. |

| NURS 8316  | Implementing Advanced Practice Roles in Adult Nursing                       |
| A-F only, 4-6 credit(s); prereq 5222, 5800, 8100, 8140, 8170, 8314, 8315; | |
| Instructor: Zaccagnini, Mary E |
| Description: Student may contact the instructor or department for information. |

| NURS 8321  | Advanced Nursing Care of the Elderly I                                       |
| A-F only, 4-6 credit(s), max credits 6, 1 repeat allowed; | |
| prereq Grad student in nursing, instr consent; | |
| Instructor: Pung, Laurie Jean |
| Description: Student may contact the instructor or department for information. |

| NURS 8323  | Advanced Nursing Care of the Elderly (II): For Nurse Practitioners           |
| A-F only, 5-6 credit(s), max credits 6, 1 repeat allowed; | |
| prereq 8322, 8xxx advanced gerontological nurs course, grad nurs major, instr consent; | |
| Instructor: Schurrer-Erickson, Karin |
| Description: Student may contact the instructor or department for information. |

| NURS 8341  | Advanced Practice Psychiatric/Mental Health Nursing in Groups and Community  |
| 7 credit(s); prereq 5340, 8340, concurrent enrollment in 8240, concurrent enrollment in 8242; | |
| Instructor: Kaas, Merrie Jean |
| Description: Student may contact the instructor or department for information. |

| NURS 8360  | Advanced Clinical Nursing                                                    |
| 1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent; | |
| Instructor: Leonard, Barbara J |
| Description: Student may contact the instructor or department for information. |

| NURS 8360  | Advanced Clinical Nursing                                                    |
| 1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent; | |
| Instructor: Lindquist, Ruth Ann |
| Description: Student may contact the instructor or department for information. |

| NURS 8360  | Advanced Clinical Nursing                                                    |
| 1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent; | |
| Instructor: Henly, Susan J S |
| Description: Student may contact the instructor or department for information. |

| NURS 8360  | Advanced Clinical Nursing                                                    |
| 1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent; | |
| Instructor: Edwardson, Sandra R |
| Description: Student may contact the instructor or department for information. |

| NURS 8360  | Advanced Clinical Nursing                                                    |
| 1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent; | |
| Instructor: Lindeke PhD, Linda Luciente |
| Description: Student may contact the instructor or department for information. |

| NURS 8360  | Advanced Clinical Nursing                                                    |
| 1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent; | |
| Instructor: Halcon PhD, Linda Luciente |
| Description: Student may contact the instructor or department for information. |

| NURS 8360  | Advanced Clinical Nursing                                                    |
| 1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent; | |
| Instructor: Kaas, Merrie Jean |
| Description: Student may contact the instructor or department for information. |

| NURS 8360  | Advanced Clinical Nursing                                                    |
| 1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent; | |
| Instructor: Lindke PhD, Linda L |
| Description: Student may contact the instructor or department for information. |

| NURS 8360  | Advanced Clinical Nursing                                                    |
| 1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent; | |
| Instructor: Krichbaum, Kathleen Elaine |
| Description: Student may contact the instructor or department for information. |

| NURS 8360  | Advanced Clinical Nursing                                                    |
| 1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent; | |
| Instructor: Duckett, Laura J |
| Description: Student may contact the instructor or department for information. |
NURS 8360 Advanced Clinical Nursing
1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent;
Instructor: Juve, Catherine
Description: Student may contact the instructor or department for information.

NURS 8360 Advanced Clinical Nursing
1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent;
Instructor: Garwick, Ann Elizabe
Description: Student may contact the instructor or department for information.

NURS 8360 Advanced Clinical Nursing
1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent;
Instructor: Rowan, Mary M.
Description: Student may contact the instructor or department for information.

NURS 8360 Advanced Clinical Nursing
1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent;
Instructor: Bearinger, Linda Holm
Description: Student may contact the instructor or department for information.

NURS 8360 Advanced Clinical Nursing
1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent;
Instructor: Treat-Jacobson PhD, Diane Jeanette
Description: Student may contact the instructor or department for information.

NURS 8360 Advanced Clinical Nursing
1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent;
Instructor: Chlan, Linda Lee
Description: Student may contact the instructor or department for information.

NURS 8360 Advanced Clinical Nursing
1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent;
Instructor: Bliss PhD, Donna Zimmaro
Description: Student may contact the instructor or department for information.

NURS 8360 Advanced Clinical Nursing
1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent;
Instructor: Kubik, Martha Young
Description: Student may contact the instructor or department for information.

NURS 8360 Advanced Clinical Nursing
1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent;
Instructor: Kaas, Merrie Jean
Description: Student may contact the instructor or department for information.

NURS 8360 Advanced Clinical Nursing
1-6 credit(s), max credits 6, 1 repeat allowed; prereq Grad nurs major, instr consent;
Instructor: Gross, Cynthia R
Description: Student may contact the instructor or department for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad nurs major, instr consent;
Instructor: Leonard, Barbara J
Description: Student may contact the instructor or department for information.

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NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Lindquist,Ruth Ann
Description: Student may contact the instructor or department
for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Henly,Susan J S
Description: Student may contact the instructor or department
for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Edwardson,Sandra R
Description: Student may contact the instructor or department
for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Westra,Bonnie L
Description: Student may contact the instructor or department
for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Lindeke PhD,Linda L
Description: Student may contact the instructor or department
for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Krichbaum,Kathleen Elaine
Description: Student may contact the instructor or department
for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Duckett,Laura J
Description: Student may contact the instructor or department
for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Juve,Catherine
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for information.

NURS 8361 Special Topics in Nursing
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nurs major, instr consent;
Instructor: Garwick,Ann Elizabe
Description: Student may contact the instructor or department
for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Rowan,Mary M.
Description: Student may contact the instructor or department

for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Bearinger,Linda Holm
Description: Student may contact the instructor or department
for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Treat-Jacobson PhD,Diane Jeanette
Description: Student may contact the instructor or department
for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Chlan,Linda Lee
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NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
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Instructor: Fagerlund,Kathleen A
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for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Bliss PhD,Donna Zimmaro
Description: Student may contact the instructor or department
for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Kubik,Martha Young
Description: Student may contact the instructor or department
for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Kaas,Merrie Jean
Description: Student may contact the instructor or department
for information.

NURS 8361 Special Topics in Nursing
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad
nurs major, instr consent;
Instructor: Kaas,Merrie Jean
Description: Student may contact the instructor or department
for information.

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Instructor: Peden-McAlpine, Cynthia Jeanne  
Description: Student may contact the instructor or department for information.

NURS 8361 Special Topics in Nursing  
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad nurs major, instr consent;  
Instructor: Wyman, Jean Frances  
Description: Student may contact the instructor or department for information.

NURS 8361 Special Topics in Nursing  
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad nurs major, instr consent;  
Instructor: Mueller, Christine Ann  
Description: Student may contact the instructor or department for information.

NURS 8361 Special Topics in Nursing  
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad nurs major, instr consent;  
Instructor: Disch, Joanne M  
Description: Student may contact the instructor or department for information.

NURS 8361 Special Topics in Nursing  
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad nurs major, instr consent;  
Instructor: Hansen, Helen Elizabeth  
Description: Student may contact the instructor or department for information.

NURS 8361 Special Topics in Nursing  
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad nurs major, instr consent;  
Instructor: Kerr, Madeleine June  
Description: Student may contact the instructor or department for information.

NURS 8361 Special Topics in Nursing  
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad nurs major, instr consent;  
Instructor: Moss JD, PhD, Margaret P  
Description: Student may contact the instructor or department for information.

NURS 8361 Special Topics in Nursing  
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad nurs major, instr consent;  
Instructor: Moss JD, PhD, Margaret P  
Description: Student may contact the instructor or department for information.

NURS 8361 Special Topics in Nursing  
1-4 credit(s), max credits 4, 1 repeat allowed; prereq Grad nurs major, instr consent;  
Instructor: Liaschenko, Joan  
Description: Student may contact the instructor or department for information.

NURS 8402 Primary Care: Assessment and Management of Health for Advanced Practice Nurses  
A-F only, 2-4 credit(s), max credits 4, 1 repeat allowed; prereq 5200, 5222, 5224, 8242;  
Instructor: Nyaard, Georgia Gayle  
Description: Student may contact the instructor or department for information.

NURS 8403 Primary Care Practice for Family Nurse Practitioners: Assessment and Management of Health  
S-N only, 4 credit(s); prereq 5200, 5222, 8402;  
Instructor: Bata Jones, Bonnie Rose  
Description: Student may contact the instructor or department for information.

NURS 8405 Family Practice Practicum II  
A-F only, 2 credit(s), max credits 4; prereq 5200, 5222, 5224, 8402, 8601;  
Instructor: Schadewald, Diane Marie  
Description: Student may contact the instructor or department for information.

NURS 8450 Primary Care: Health Assessment and Care of Well Children  
3 credit(s); prereq 5200, 5222, concurrent enrollment in 8451;  
Instructor: Poe, Christine R  
Description: Student may contact the instructor or department for information.

NURS 8451 Primary Care Practicum: Health Assessment and Care of Well Children  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed; prereq 5200, concurrent enrollment 8450, instr consent;  
Instructor: Poe, Christine R  
Description: Student may contact the instructor or department for information.

NURS 8456 Health Care for Children and Youth with Special Health Care Needs Practicum  
3 credit(s); prereq 8454, 8455, instr consent;  
Instructor: Looman PhD, Wendy Sue  
Description: Student may contact the instructor or department for information.

NURS 8457 Assessment and Intervention Models in Families of Children with Special Health Care Needs  
4 credit(s); prereq 8124 or equiv, 8100, 8456, instr consent;  
Instructor: Looman PhD, Wendy Sue  
Description: Student may contact the instructor or department for information.

NURS 8500 Reproductive Health Care for Women Practicum for the Family Nurse Practitioner  
S-N only, 2 credit(s); prereq Concurrent registration with NURS 8501, 8405;  
Instructor: Schadewald, Diane Marie  
Description: Student may contact the instructor or department for information.

NURS 8501 Reproductive Health Care for Women  
3-8 credit(s), max credits 8, 1 repeat allowed; prereq 5200, instr consent;  
Instructor: Plumbo, Margaret Anne  
Description: Student may contact the instructor or department for information.

NURS 8502 Reproductive Health Care for Women at Risk  
2-6 credit(s), max credits 6, 1 repeat allowed; prereq 8503 or 8520;  
Instructor: Wachdorf, Cecilia M  
Description: Student may contact the instructor or department for information.

NURS 8601 Interventions for Health of Populations  
3 credit(s); prereq 8040;  
Instructor: Findorff, Mary Jocelyn  
Description: Student may contact the instructor or department for information.

NURS 8602 Public Health Nursing Intervention Practicum  
S-N only, 3 credit(s); prereq 8242, 8601;  
Instructor: Findorff, Mary Jocelyn  
Description: Student may contact the instructor or department for information.
Description: Student may contact the instructor or department for information.

NURS 8721 The Nurse Educator in Higher Education
4 credit(s); prereq [8241, 8242, 8720, educational measurement course, grad nursing major] or instr consent;
Instructor: Fjone,Andra Lynn
Description: Student may contact the instructor or department for information.

Nutrition
225 Food Science & Nutrition Building

NUTR 5622 Vitamin and Mineral Biochemistry
3 credit(s); prereq BioC 3021, Phsl 3051, FSCN 4612;
Instructor: Gallaher,Daniel David
Description: This course focuses on the physiological functions and biochemical actions of vitamins and essential minerals. Topics discussed for each include absorption, transport, storage, metabolic function, reaction mechanism, excretion, and toxicity. Examples of deficiency signs are given extensively. Also considered are interactions among vitamins and essential minerals, approaches to biochemical assessment of status, and dietary requirements. The format is primarily lecture, with in-class discussion. The class is intended for graduate students with an interest in nutrition and undergraduate nutrition science students.
Style: 95% Lecture, 5% Student Presentation.
Grading: 64% mid exam, 16% final exam, 20% reports/papers. Exams are non-cumulative.
Exam Format: Exams are essay. They are a combination of short and long answers. Exams are not time-limited.

NUTR 5624 Nutrition and Genetics
A-F only, 2 credit(s); prereq Biochemistry;
Instructor: Peterson,Sabrina
Description: Student may contact the instructor or department for information.

NUTR 8620 Advances in Nutrition
2-3 credit(s), max credits 6, 3 repeats allowed; prereq instr consent;
Instructor: Brady,Linda J
Description: Student may contact the instructor or department for information.

Obstetrics and Gynecology
12-211 MoosT (Box 395 UMHC)

OBST 8224 Gynecological Endocrinology I
1-15 credit(s), max credits 15, 1 repeat allowed; prereq 8223;
Instructor: Carson,Linda F
Description: Student may contact the instructor or department for information.

OBST 8225 Gynecological Endocrinology II
1-15 credit(s), max credits 15, 1 repeat allowed; prereq 8224;
Instructor: Carson,Linda F
Description: Student may contact the instructor or department for information.

OBST 8226 Obstetrical Physiology and Anesthesiology
1-15 credit(s), max credits 15, 1 repeat allowed; prereq 8225;
Instructor: Carson,Linda F
Description: Student may contact the instructor or department for information.

OBST 8227 Preceptorship in Clinical Practice
1-15 credit(s), max credits 15, 1 repeat allowed; prereq 8226;
Instructor: Carson,Linda F
Description: Student may contact the instructor or department for information.

OBST 8240 Human Gametes and Fertilization
3 credit(s);
Instructor: Carson,Linda F
Description: Student may contact the instructor or department for information.

OBST 8241 Human Gametes and Fertilization Laboratory
2 credit(s);
Instructor: Carson,Linda F
Description: Student may contact the instructor or department for information.

OBST 8243 Topics in Family Planning
2-8 credit(s), max credits 12;
Instructor: Carson,Linda F
Description: Student may contact the instructor or department for information.

Occupational Therapy
271 Children’s Rehabilitation Center(Box 388 UMHC)

OT 5182 Functional Neuroanatomy and Neurophysiology
A-F only, 4 credit(s); prereq Registered occupational therapy student or instr consent ;
Instructor: Martin PhD,Peggy Mae
Description: Student may contact the instructor or department for information.

OT 5341 Introduction: Evaluation and Intervention I
A-F only, 4 credit(s); prereq 5393 or instr consent ;
Instructor: Anderson,Diane R
Description: Student may contact the instructor or department for information.

OT 5342 Compensatory Rehabilitation: Evaluation and Intervention II
A-F only, 4 credit(s); prereq 5300, 5313 or instr consent ;
Instructor: Meyers,Cheryl Ann
Description: Student may contact the instructor or department for information.

OT 5344 Neurorehabilitation: Evaluation and Intervention IV
A-F only, 5 credit(s); prereq 5343 or instr consent ;
Instructor: Martin PhD,Peggy Mae
Description: Student may contact the instructor or department for information.

OT 5376 Adult Education and Planning
A-F only, 1 credit(s); prereq 5313 or instr consent ;
Instructor: Meyers,Cheryl Ann
Description: Student may contact the instructor or department for information.

OT 5380 Management of Occupational Therapy Services
A-F only, 3 credit(s); prereq [5360, 5375, 5376] or instr consent ;
Instructor: Schaber PhD,Patricia Louise
Description: Student may contact the instructor or department for information.

OT 5391 Occupation Across the Life Span
A-F only, 3 credit(s); prereq [5375, 5376] or instr consent ;
Instructor: Meyers,Cheryl Ann
Description: Student may contact the instructor or department for information.

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OT 5392 Research in Occupational Therapy
A-F only, 3 credit(s); prereq 5313 or instr consent ;
Instructor: Mathiowetz PhD, Virgil G
Description: Student may contact the instructor or department for information.

OT 5395 Independent Study in Occupational Therapy
1-4 credit(s), max credits 16, 16 repeats allowed; prereq Enrolled OT student or instr consent ;
Instructor: Martin PhD, Peggy Mae
Description: Student may contact the instructor or department for information.

OT 6100 Public and Professional Engagement I
S-N only, 0.5 credit(s), max credits 1;
Instructor: Anderson, Diane R
Description: Student may contact the instructor or department for information.

OT 6201 Functional Anatomy and Kinesiology
A-F only, 3 credit(s); prereq OT student or instr consent ;
Instructor: Mathiowetz PhD, Virgil G
Description: Student may contact the instructor or department for information.

OT 6202 Occupational Therapy Process for Individuals: Occupation Through Compensation
A-F only, 5 credit(s); prereq Registered OT student or instr consent ;
Instructor: Meyers, Cheryl Ann
Description: Student may contact the instructor or department for information.

OT 6203 Occupational Therapy Process for Family
A-F only, 2 credit(s); prereq OT student or instr consent ;
Instructor: Schaber PhD, Patricia Louise
Description: Student may contact the instructor or department for information.

OT 6213 Occupational Therapy Process for Individuals: Medical Contexts
A-F only, 2 credit(s); prereq OT student or instr consent ;
Instructor: Howe, Malia
Description: Student may contact the instructor or department for information.

OT 7201 Scholarly Inquiry in Health Sciences
A-F only, 4 credit(s); prereq OT student or instr consent ;
Instructor: Mathiowetz PhD, Virgil G
Description: Student may contact the instructor or department for information.

OT 8300 Research Seminar in Occupational Therapy
S-N only, 1 credit(s); prereq 5392 or instr consent ;
Instructor: Stern PhD, Erica Beth
Description: Student may contact the instructor or department for information.

OT 8310 Research Problems in Occupational Therapy
S-N only, 1-6 credit(s), max credits 6, 3 repeats allowed; prereq [5392, Plan B OT student] or instr consent ;
Instructor: Meyers, Cheryl Ann
Description: Student may contact the instructor or department for information.

OT 8320 Fieldwork Education in Occupational Therapy I
S-N only, 1-6 credit(s), max credits 6; prereq Occupational therapy student or instr consent ;
Instructor: Meyers, Cheryl Ann
Description: Student may contact the instructor or department for information.

OT 8321 Fieldwork Education in Occupational Therapy II
S-N only, 1-6 credit(s), max credits 6; prereq Occupational therapy student or instr consent ;
Instructor: Meyers, Cheryl Ann
Description: Student may contact the instructor or department for information.

OT 8322 Fieldwork Education in Occupational Therapy III:
Optional
S-N only, 1-6 credit(s), max credits 6; prereq Occupational therapy student or instr consent ;
Instructor: Meyers, Cheryl Ann
Description: Student may contact the instructor or department for information.

Off-Campus Study
220 Johnston Hall

OCS 3550 National Student Exchange: Off-Campus Study
S-N only, 0 credit(s); prereq dept consent ;
Instructor: STAFF
Description: This course registration allows students to study in a different part of the United States for up to a year through National Student Exchange. There are more than 170 National Student Exchange (NSE) institutions in Hawaii, Florida, and 48 other states and regions, including Puerto Rico, Guam, the Virgin Islands, and Canada. The application deadline for participation in the following academic year is mid-February. Prerequisite: application and acceptance into the National Student Exchange program in the Career and Community Learning Center.

Ojibwe

OJIB 1102 Beginning Ojibwe II
5 credit(s); prereq 1101; Credit will not be granted if credit has been received for: OJIB 4102;
Instructor: Jones, Dennis
Description: Student may contact the instructor or department for information.

OJIB 3104 Intermediate Ojibwe II
5 credit(s); prereq 1102, 1102,3103; Credit will not be granted if credit has been received for: OJIB 4104;
Instructor: Jones, Dennis
Description: Student may contact the instructor or department for information.

OJIB 5109 Advanced Ojibwe Language II
A-F only, 3 credit(s), max credits 12, 4 repeats allowed; Instructor: Fairbanks, Brendan George
Description: Student may contact the instructor or department for information.

Operations and Management Sciences
3-140 CarlSMgmt

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;
Instructor: STAFF
Description: Student may contact the instructor or department for information.
OMS 3001 Introduction to Operations Management
A-F only, 3 credit(s);
Instructor: STAFF
Description: Basic concepts, principles, and techniques for managing manufacturing and service operations. Emphasis on decision making in the operations function of organizations. Quantitative and qualitative methods for improving the management of operations stressed. Management students provided with an appreciation of the operations function of organizations.
Style: 50% Lecture, 30% Discussion. Interactive games Grading: 20% mid exam, 30% final exam, 10% quizzes, 15% class participation, 25% problem solving.
Exam Format: multiple choice, short answer, problem solving.

OMS 3056 Operations 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, Material Requirements Planning (MRP), Just-In-Time, and theory of constraints.

OMS 3059 Quality Management and Six Sigma
A-F only, 4 credit(s); prereq 3001 or equivalent 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.

OSUR 8250 Oral and Maxillofacial Surgery Rotation for the Oral and Maxillofacial Surgeon
A-F only, 0-6 credit(s), max credits 6, 1 repeat 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 8251 Oral and Maxillofacial Surgery Core Curriculum
A-F only, 0-2 credit(s), max credits 2, 1 repeat 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
A-F only, 0-5 credit(s), max credits 5, 1 repeat allowed;
prereq Participation in oral and maxillofacial surgery

OSUR 5257 Ambulatory General Anesthesia for the Oral and Maxillofacial Surgeon
A-F only, 0-6 credit(s), max credits 6, 1 repeat 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
A-F only, 0-4 credit(s), max credits 4, 1 repeat 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 5250 Oral and Maxillofacial Surgery Rotation for the Oral and Maxillofacial Surgeon
A-F only, 0-6 credit(s), max credits 6, 1 repeat 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 8251 Oral and Maxillofacial Surgery Core Curriculum
A-F only, 0-2 credit(s), max credits 2, 1 repeat 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
A-F only, 0-5 credit(s), max credits 5, 1 repeat allowed;
prereq Participation in oral and maxillofacial surgery

Oral and Maxillofacial Surgery
7-174 MoosT

This information is accurate as of 6/9/2008 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>Description</th>
<th>Instructor</th>
<th>Prerequisites</th>
<th>Credits</th>
<th>Repeat Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTHO 7103</td>
<td>Growth &amp; Development</td>
<td>A-F only, 0-5 credit(s), max credits 5, 1 repeat allowed; prereq Admission to graduate orthodontic program.</td>
<td>Beyer, John Paul</td>
<td></td>
<td>A-F only, 0-5 credit(s), max credits 5, 1 repeat allowed; prereq Admission to graduate orthodontic program.</td>
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<tr>
<td>OTHO 7113</td>
<td>Diagnosis &amp; Treatment Planning</td>
<td>A-F only, 0-5 credit(s), max credits 5, 1 repeat allowed; prereq Admission to graduate orthodontic program.</td>
<td>Vayda, Patricia Macchiarul</td>
<td></td>
<td>2 credit(s); prereq Grad Otol major or instr consent</td>
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<tr>
<td>OTHO 7203</td>
<td>Clinical Orthodontics</td>
<td>A-F only, 0-5 credit(s), max credits 5, 1 repeat allowed; prereq Admission to graduate orthodontic program.</td>
<td>Beyer, John Paul</td>
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<tr>
<td>OTHO 8123</td>
<td>Orthodontic Seminar</td>
<td>A-F only, 0-5 credit(s), max credits 5, 1 repeat allowed; prereq Orthodontic grad student;</td>
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<td>A-F only, 0-5 credit(s), max credits 5, 1 repeat allowed; prereq Orthodontic grad student;</td>
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<tr>
<td>OTHO 8133</td>
<td>Topics in Orthodontics</td>
<td>A-F only, 0-5 credit(s), max credits 5, 1 repeat allowed; prereq Orthodontic grad student;</td>
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<td>A-F only, 0-5 credit(s), max credits 5, 1 repeat allowed; prereq Orthodontic grad student;</td>
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<tr>
<td>OTHO 8143</td>
<td>Research in Orthodontics</td>
<td>A-F only, 0-5 credit(s), max credits 5, 1 repeat allowed; prereq Orthodontic grad student;</td>
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<td>A-F only, 0-5 credit(s), max credits 5, 1 repeat allowed; prereq Orthodontic grad student;</td>
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<tr>
<td>OTOL 5101</td>
<td>Introduction to the Basic Sciences in Otolaryngology I: Ear</td>
<td>A-F only, 2 credit(s); prereq Otolaryngology major or instr consent;</td>
<td>Anderson, John Harold</td>
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<td>A-F only, 2 credit(s); prereq Otol major or instr consent;</td>
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<tr>
<td>OTOL 5102</td>
<td>Introduction to the Basic Sciences in Otolaryngology II: Head and Neck</td>
<td>A-F only, 2 credit(s); prereq Otol major or instr consent;</td>
<td>Lassman, Frank M</td>
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<tr>
<td>OTOL 8230</td>
<td>Clinical Otorhinolaryngology</td>
<td>A-F only, 4 credit(s); prereq Grad otol major;</td>
<td>Yueh, Bevan</td>
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<tr>
<td>OTOL 8231</td>
<td>Surgery of the Ear, Nose, and Throat</td>
<td>A-F only, 3 credit(s); prereq Grad otol major;</td>
<td>Yueh, Bevan</td>
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<td>OTOL 8233</td>
<td>Plastic and Reconstructive Surgery: Head and Neck</td>
<td>A-F only, 1 credit(s); prereq Otol major;</td>
<td>Hilger, Peter A</td>
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<tr>
<td>OTOL 8234</td>
<td>Anatomy of the Head and Neck and Temporal Bone Dissection</td>
<td>2 credit(s); prereq Grad otol major or instr consent;</td>
<td>Huang, Tina Chung Ting</td>
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<tr>
<td>OTOL 8237</td>
<td>Endoscopy</td>
<td>A-F only, 1 credit(s), max credits 12, 12 repeats allowed; prereq Grad otol major;</td>
<td>Ekim, Lilah Suzan</td>
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<td></td>
</tr>
</tbody>
</table>

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OTOL 8239 Otoneurology
1-2 credit(s), max credits 12, 12 repeats 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 repeats 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 repeats allowed; prereq Grad otol major;
Instructor: Yuen, 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, Deidre 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 8244 Seminar: Current Literature
1 credit(s); prereq Grad otol major or instr consent;
Instructor: Lin, Ji-Zhen
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 repeat 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 8250 Advanced Biochemistry of the Auditory System
1 credit(s); prereq MdBc 6100, MdBc 6101 or equiv or instr consent;
Instructor: John, 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 Advanced Pediatric Dentistry for Postgraduate Dental Fellows
S-N only, 1 credit(s);
Instructor: Grothe, Ronald L.
Description: Student may contact the instructor or department for information.

PDEN 7100 Advanced Clinical Pediatric Dentistry Techniques
A-F only, 1-5 credit(s), max credits 5, 1 repeat allowed;
Instructor: Grothe, Ronald L.
Description: Student may contact the instructor or department for information.

PDEN 7200 Advanced Pediatric Dentistry Techniques
A-F only, 3 credit(s);
Instructor: Hartel, Lucy M
Description: Description of and exercises in advanced pediatric dentistry skills and techniques.

PDEN 8010 Pediatric Dentistry and Treatment Planning
A-F only, 1 credit(s);
Instructor: Grothe, Ronald L.
Description: Student may contact the instructor or department for information.

PDEN 8031 Independent Pediatric Dentistry Study
2 credit(s);
Instructor: Grothe, Ronald L.
Description: Student may contact the instructor or department for information.

PDEN 8100 Hospital Pediatric Dentistry I
S-N only, 1 credit(s);
Instructor: Grothe, Ronald L.
Description: Student may contact the instructor or department for information.

PDEN 8110 Hospital Pediatric Dentistry II
S-N only, 3 credit(s);
Instructor: Grothe, Ronald L.
Description: Student may contact the instructor or department for information.

Pharmacology
9-177 Weaver-Densford Hall

PHM 8100 Seminar: Pharmacology
S-N only, 1 credit(s), max credits 4, 4 repeats allowed; prereq Grad Phm major;
Instructor: Zimmerman, Cheryl L
Description: Student may contact the instructor or department for information.

PHM 8110 Readings in Pharmacology
S-N only, 1 credit(s), max credits 4, 4 repeats allowed; prereq Grad Phm major;
Instructor: Wiedmann, Timothy Scott
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 repeats allowed; prereq Grad Phm major; Credit will not be granted if credit has been received for: PHAR 6223;
Instructor: Zimmerman, Cheryl L
Description: Student may contact the instructor or department for information.

PHM 8421 Advanced Pharmacokinetics
A-F only, 4 credit(s);
Instructor: Elmquist, William Frederick
Description: Student may contact the instructor or department for information.

PHM 8431 Controlled Release: Materials, Mechanisms, and Models
A-F only, 3 credit(s); prereq Differential equations course including partial differential equations or instr consent; Credit will not be granted if credit has been received for: BMEN 8431;
Instructor: Siegel, Ronald Alan
Description: Student may contact the instructor or department for information.
PHCL 3100 Pharmacology for Pre-Med and Life Science Students
A-F only, 2 credit(s); prereq College-level biology; biochemistry or physiology recommended;
Instructor: Wei, Li-Na
Description: This introductory course in modern pharmacology is suitable for students interested in clinical medicine, biological science research, pharmaceutical industry, and development of modern therapeutic agents. The emphasis will be on the big picture of "therapeutic drugs" in general, and to prepare students for future success in modern medicine, research, industry, or matriculation to health science programs. This course covers different drug categories for major organ systems including the nervous system, the cardiovascular system, and the endocrine/ reproductive systems, as well as drugs for conditions like cancers and infectious and inflammatory diseases. The course will also briefly introduce concepts in modern drug design such as gene and cell therapy and the application of pharmacogenomics. Text: "PHARMACOLOGY Condensed," Dale and Haylett, Fifth Edition, Churchill Livingstone (2004)

PHCL 5103 Pharmacology for Dental Students
3 credit(s); prereq enrolled dental student or instr consent;
Instructor: Romero, Daniel Patrick

PHCL 5109 Problems in Pharmacology
1-18 credit(s), max credits 18, 1 repeat allowed; prereq Upper div or grad student or instr consent;
Instructor: Loh, Horace H
Description: This course provides the opportunity to delve into the details of pharmacology and its impact on the practice of medicine. Topics may include the pharmacology of select disease states and the use of various types of medications. Students are encouraged to develop a thorough understanding of the pathophysiology and pharmacology of disease states and their potential treatments. This course is designed to provide students with a strong foundation in pharmacology and to prepare them for advanced coursework in pharmacology. Students will be required to participate in a group project that involves the design and implementation of a drug therapy plan for a fictional patient. The project will be presented in a formal presentation to the class. Students will also be expected to engage in critical thinking and problem-solving skills in order to effectively assess and monitor patient care. Students will be required to complete a series of assignments and quizzes to assess their understanding of the material. This course is designed to be challenging and require a significant amount of time and effort. It is recommended that students have a solid foundation in basic science concepts, as well as an understanding of the principles of pharmacology. This course is designed for students who are interested in pursuing careers in medicine, pharmacy, or related fields. It is not recommended for students who are not interested in pursuing careers in these fields.

PHCL 5111 Pharmacogenomics
A-F only, 3 credit(s); prereq Grad student or instr consent;
Instructor: Campbell, Colin R
Description: This course covers the basics of pharmacogenomics, including the genetic basis of drug response and the implications for personalized medicine. Students will learn about the molecular mechanisms that underlie drug response and how these mechanisms can be used to predict individual drug responses. The course will also cover the ethical, legal, and social implications of pharmacogenomics.

PHCL 5112 A Graduate Student Toolkit: Scientific Speaking, Grant Writing, and Responsible Conduct of Research
A-F only, 2 credit(s); prereq instr consent;
Instructor: Law, Ping-Yee
Description: This course is designed to provide graduate students with the skills and knowledge necessary to succeed in their academic and professional careers. The course covers topics such as scientific speaking, grant writing, and responsible conduct of research. Students will learn how to prepare and present scientific talks, how to write effective grants, and how to adhere to ethical standards in research. The course also includes a case study component, which provides students with the opportunity to apply the concepts and skills learned in a practical context. This course is intended for graduate students in the sciences.

PHCL 5212 Pharmacology
A-F only, 3 credit(s); prereq 5211 or instr consent;
Instructor: Thayer, Stanley A
Description: This course provides an introduction to the field of pharmacology for students interested in pursuing careers in medicine, pharmacy, or related fields. The course covers basic principles of pharmacology, including drug classification, mechanisms of action, and therapeutic effects. Students will also learn about the ethical and legal considerations involved in the practice of pharmacology. The course is designed to be challenging and requires a significant amount of time and effort. It is recommended that students have a solid foundation in basic science concepts, as well as an understanding of the principles of pharmacology. This course is designed for students who are interested in pursuing careers in medicine, pharmacy, or related fields.

PHCL 8110 Advanced Pharmacology
A-F only, 4 credit(s); prereq 5110 or instr consent;
Instructor: Loh, Horace H
Description: This course provides an advanced introduction to the field of pharmacology for students interested in pursuing careers in medicine, pharmacy, or related fields. The course covers advanced principles of pharmacology, including drug interactions, pharmacokinetics, and pharmacodynamics. Students will also learn about the ethical and legal considerations involved in the practice of pharmacology. The course is designed to be challenging and requires a significant amount of time and effort. It is recommended that students have a solid foundation in basic science concepts, as well as an understanding of the principles of pharmacology. This course is designed for students who are interested in pursuing careers in medicine, pharmacy, or related fields.

PHAR 1001 Orientation to Pharmacy
2 credit(s);
Instructor: Pittenger, Amy Louise
Description: This course provides an introduction to the field of pharmacy for students interested in pursuing careers in pharmacy. The course covers basic principles of pharmacy, including drug classification, mechanisms of action, and therapeutic effects. Students will also learn about the ethical and legal considerations involved in the practice of pharmacy. The course is designed to be challenging and requires a significant amount of time and effort. It is recommended that students have a solid foundation in basic science concepts, as well as an understanding of the principles of pharmacy. This course is designed for students who are interested in pursuing careers in pharmacy.

PHAR 1002 Health Sciences Terminology
2 credit(s);
Instructor: Pittenger, Amy Louise
Description: This course provides an introduction to the field of health sciences terminology for students interested in pursuing careers in health sciences. The course covers basic principles of health sciences terminology, including the English language and medical terminology. Students will also learn about the ethical and legal considerations involved in the practice of health sciences. The course is designed to be challenging and requires a significant amount of time and effort. It is recommended that students have a solid foundation in basic science concepts, as well as an understanding of the principles of health sciences. This course is designed for students who are interested in pursuing careers in health sciences.

PHAR 1003 Non-Prescription Medications and Self-Care: Treating Minor Conditions
2 credit(s);
Instructor: Pittenger, Amy Louise
Description: This course provides an introduction to the field of non-prescription medications and self-care for students interested in pursuing careers in pharmacy. The course covers basic principles of non-prescription medications and self-care, including the use of over-the-counter medications and the treatment of common minor conditions. Students will also learn about the ethical and legal considerations involved in the practice of non-prescription medications and self-care. The course is designed to be challenging and requires a significant amount of time and effort. It is recommended that students have a solid foundation in basic science concepts, as well as an understanding of the principles of non-prescription medications and self-care. This course is designed for students who are interested in pursuing careers in pharmacy.

PHAR 1004 Common Prescription Drugs and Diseases
2 credit(s);
Instructor: Pittenger, Amy Louise
Description: This course provides an introduction to the field of common prescription drugs and diseases for students interested in pursuing careers in pharmacy. The course covers basic principles of common prescription drugs and diseases, including the use of prescription medications and the treatment of common diseases. Students will also learn about the ethical and legal considerations involved in the practice of common prescription drugs and diseases. The course is designed to be challenging and requires a significant amount of time and effort. It is recommended that students have a solid foundation in basic science concepts, as well as an understanding of the principles of common prescription drugs and diseases. This course is designed for students who are interested in pursuing careers in pharmacy.

This information is accurate as of 6/9/2008 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.
PHAR 3800 Pharmacotherapy for the Health Professions
A-F only, 3 credit(s); prerequisite: Enrolled [nursing or radiation therapy or respiratory care] student;
Instructor: Janké PhD, Kristin Karl
Description: This online course provides enrolled nursing, radiation therapy and respiratory care students with a general understanding of drug therapy and its implications in patient care. (See course website for exact prereqs for each health professional program.) There is no textbook for this course. Students use Vista to: view audio-narrated powerpoint presentations, download handout materials, complete self tests and cases 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 our course website or contact rxsystem@umn.edu or 612-624-7976.
Style: self-study with 2 scheduled in-person testing sessions
Grading: 20% reports/papers, 30% quizzes, 50% other evaluation. 2 exams
Exam Format: Multiple choice

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 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 Paper (5 pages) 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.
Grading: 42% reports/papers, 30% reflection paper, 28% class participation. class participation is defined as postings to the course discussion board

PHAR 5200 Drug-related Policy and the U.S. Health Care System
A-F only, 3 credit(s); prerequisite: Grad student; Credit will not be granted if credit has been received for: PHAR 4200W;
Instructor: Pittenger, Amy Louise
Description: Phar 5200 Drugs and the US Healthcare System 3 cr. Prereqs: 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 Paper (10 pages) 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.
Grading: 42% reports/papers, 30% reflection paper, 28% class participation. class participation is defined as discussion board postings

PHAR 5201 Health Sciences Applied Terminology
2 credit(s); prerequisite: Basic knowledge of human anatomy/physiology;
Instructor: Pittenger, Amy Louise
Description: Student may contact the instructor or department for information.

PHAR 5700 Applied Fundamentals of Pharmacotherapy
A-F only, 3 credit(s); prerequisite: Medical terminology, [admission to grad program or instr consent];
Instructor: Pittenger, Amy Louise
Description: Student may contact the instructor or department for information.

PHAR 6165 Pharmaceutical Calculations
A-F only, 1 credit(s); prerequisite: 1st yr pharmacy student;
Instructor: Brown, Michael C
Description: Student may contact the instructor or department for information.

PHIL 1001W 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 Core;
Instructor: STAFF
Description: Have you ever heard an argument that you knew wasn't any good, but you didn't have the tools you needed to show what was wrong with it? This course will give you those tools. We will look at many different kinds of arguments and we will identify the patterns of good and bad arguments. You will learn a method for describing and analyzing these patterns so that you will be able to evaluate even very complicated arguments in a straightforward way. Armed with these abilities you will be able to diagnose the problems with faulty arguments and you will be better equipped to come up with excellent arguments of your own. Your writing will become clearer, better argued, and more forceful. And most of all, you will become a cleaner and more reasonable thinker. Logic cannot teach you what to think, but it will teach you how to think, and thinking logically is a crucial skill for you as a student and a citizen.

PHIL 1002V Honors: Introduction to Philosophy
4 credit(s); Credit will not be granted if credit has been received for: PHIL 1002W; Meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive;
Instructor: Hanks, Peter William
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 Other Humanities Core; meets CLE req of Writing Intensive;
Instructor: Hanks, Peter William
Description: Most people have heard of the famous philosophers, e.g. Socrates, Plato, Aristotle, Descartes, Hume, Kant, Wittgenstein. And most know that philosophy is about the big issues: reality, truth, God, knowledge, mind, goodness, justice, identity. Far fewer know or understand what philosophers have had to say about these problems. To many, philosophy can seem impractical, unworthy and strange. But deep and careful philosophical reflection on the big issues can enrich your life in unexpected ways. If you are curious about these problems and would like to learn about what philosophers have had to say about them then this is the course for you.
Style: 60% Lecture, 40% Discussion.
Grading: 20% mid exam, 30% final exam, 50% reports/papers. 3 short writing assignments: 10% each; paper: 20%;

PHIL 1003W Introduction to Ethics
4 credit(s); Credit will not be granted if credit has been received for: PHIL 1006W; Meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive;
Instructor: Brown, Michael C
Description: Student may contact the instructor or department for information.

PHIL 1006W Honors: Introduction to Ethics
4 credit(s); Credit will not be granted if credit has been received for: PHIL 1002W; Meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive;
Instructor: Hanks, Peter William
Description: Student may contact the instructor or department for information.
PHIL 1007 Introduction to Political Philosophy Practicum

4 credit(s); Credit will not be granted if credit has been received for: PHIL 1003V; Meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; 
Instructor: Lewis, Douglas E
Description: In this course you learn what ethics is by exploring these and related questions. You also become acquainted with such standard ethical theories as act and rule utilitarianism and Kantianism.

PHIL 1006W Philosophy and Cultural Diversity

4 credit(s); Credit will not be granted if credit has been received for: PHIL 1002W; Meets CLE req of Cultural Diversity Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; 
Instructor: Scheman, Naomi
Description: Philosophy refers both to a particular discipline and more broadly to discussions about what people are fundamentally like; how thinking, feeling, sensing, desiring, and acting are related; how we ought to behave toward other humans and other living and non-living things; what the sources of authority and respect are and what claims they have on us; and the scope and limits of our knowledge. In this sense every culture and all individuals philosophize. An aim of the course is to broaden the disciplined conversation by bringing into it voices that have been “disciplined out”—some of them in course readings and some of them of our own. Questions about authority, obedience and disobedience, anger, the nature and sources of rights, as well as about how we are connected to each other and how we decide what really matters and why, have all taken on new urgency after the attacks of September 2001 and in light of the U.S. government’s responses to those attacks. A guiding idea of the course is that canonical philosophers have something to contribute to the conversations that we—the diverse people who are here and now, in the U.S. in the 21st century—need to be having with each other about issues that concern us all. The course has five sections, each of which pairs a selection of 20th C U.S. texts with one canonical text. After each section you will have a choice of topics on which to write a one-page essay.
Style: 75% Lecture, 25% Discussion. not including discussion sections
Grading: 100% reports/papers. extra credit for participation in class or on the web
Exam Format: take-home papers

PHIL 1007 Introduction to Political Philosophy Practicum

1 credit(s); prerequisite Concurrent registration is required (or allowed) in 1004W; Meets CLE req of Citizenship/Publ Ethics Theme; 
Instructor: Root, Michael D
Description: Students must also be registered for Phil 1004. The course is designed to tie issues studied in Phil 1004 to the needs of people in the Twin Cities through community service. At least 26 hours of community service for the semester is required. Students in Phil 1007 attend classes for Phil 1004 and write 5 (2-page) biweekly papers, as well as give a presentation in Phil 1004.
Style: Community service
Grading: 80% reports/papers, 20% in-class presentation.
Exam Format: No exams

PHIL 1905 Topics: Freshman Seminar

A-F only, 3 credit(s), max credits 6; prerequisite freshman; 
Instructor: Cook, Roy Thomas
Description: Student may contact the instructor or department for information.

PHIL 3005W General History of Western Philosophy: Modern Period

4 credit(s); Credit will not be granted if credit has been received for: PHIL 3005V; Meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; 
Instructor: Lewis, Douglas E
Description: This course examines the metaphysics, epistemology, and politics of eight philosophies of Europe of the 16th, 17th, and 18th centuries, those of Descartes, Malebranche, Spinoza, Locke, Berkeley, Hume, Wollstonecraft, and Kant. We will consider the economic, religious, cultural (especially scientific), and political antecedents of the philosophies, the audience and language of the texts, and the western European social transformations of the time the philosophies informed. The course satisfies an arts and humanities diversified core requirement and is writing intensive. All interested students are welcome.
Style: 65% Lecture, 35% Discussion.
Grading: 28% mid exam, 44% final exam, 28% other evaluation. second midsenmer exam
Exam Format: take-home essay exams; two three-page essays per midsemester exam; three three-page essays for final

PHIL 3231 Philosophy and Language

4 credit(s); 
Instructor: Hanks, Peter William
Description: This course will be an introduction to philosophical reflection on the nature of language and the relation between language and thought. We will investigate questions like: What is a language? Are languages social objects? Must one have a language in order to think? Do non-linguistic animals have thoughts? What makes a word mean what it does, e.g. what makes the word ‘plus’ mean addition? Readings will include classic and contemporary texts by writers such as Noam Chomsky, John Searle, Hilary Putnam, Stephen Pinker, Saul Kripke, and others. Students will write a number of expository or argumentative papers in which they develop their skills using philosophical methods and concepts. They will also learn about how philosophical approaches to language differ from those of linguistics and psychology.
Style: 70% Lecture, 30% Discussion.
Grading: 40% final exam, 60% other evaluation. 3-5 page papers: 20% each
Exam Format: Short answer

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 Citizenship/Publ Ethics Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; 
Instructor: Bix, Brian H
Description: From the major public issues like terrorism, abortion, and capital punishment, to the more personal and day-to-day matters relating to lying, vegetarianism, and sexual morality, ethical questions pervade our lives. This course will investigate the various approaches to ethical questions, and analyze, rigorously, the arguments on both sides of a large variety of contemporary moral problems. The course will include two analysis and advocacy papers (one of which students will have to revise after receiving comments), and a closed book, final essay examination. All readings will be from texts available on-line. On the positive side, this means that no course-books need to be purchased. On the negative side, this means that students should not take this course unless they have regular access to a computer and the Internet (and can either read the articles on-line, or can print them out).
Style: 80% Lecture, 20% Discussion.
Grading: 40% final exam, 60% reports/papers.
Exam Format: essay (closed book)

PHIL 3311W Introduction to Ethical Theory

4 credit(s); Meets CLE req of Writing Intensive; 
Instructor: STAFF
Description: This course offers an introduction to ethical theory by way of a detailed examination of contemporary virtue ethics. We will begin with the very general question of what ethical theory is meant to be a theory of, in order to examine how different philosophical assumptions (consequentialist, deontological, and virtue-theoretic) emphasize different aspects of the ethical domain. We will then consider how a virtue-theoretic approach addresses some central topics in ethical theory - among them right action, moral judgment, moral...
motivation, moral education, and moral responsibility. In the process we will attend to whether (and, if so, how) virtue ethics differs from modern consequentialism and deontology and whether virtue ethics can be improved with the addition of some further philosophical assumptions. This course will be taught by Professor Liam Monahan.

**PHIL 3601W Scientific Thought**

4 credit(s); prereq One course in philosophy or natural science; Meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; Instructor: Nounou, Antigone M.

Description: One may say that on one level there is nature. On another, there are scientists studying nature. Or yet another, there are Science Studies folk, philosophers, historians and sociologists of science, who study scientists studying nature. The Science Studies folk try to understand and explain, on one the hand, how science and technology came to be dominant forces in modern society, and, on the other, how society affects the scientific enterprise. Science and its applications, which are regarded by many as the foremost achievements of human intellect, play a leading role in modern society ever since the 17th century scientific revolution. Technological applications have obvious and major effects on our everyday life, while scientific thought has a major impact, probably less conspicuous yet equally, if not more, important, on our views of nature, of the place of humans in it, and of knowledge as distinct from belief. At the same time, the societies in which scientists live and work affect their scientific inquiry in both obvious and subtle ways. In this course we will investigate the nature of scientific thought, we will explore its influence on society, and we will touch on the impact of society on science using studies of historians and philosophers of science. Our journey will span four centuries of scientific activity, from the 17th century scientific revolution, to the 19th century Darwinian revolution, to the 20th century revolution in physics, molecular biology and painting!

**PHIL 3607 Philosophy of the Biological Sciences**

3 credit(s); prereq Courses in [philosophy or biology] or instr consent; Instructor: Waters, C. Kenneth

Description: This course starts with the idea that philosophical problems are unresolved remainders of projects through which we shape our selves and our ways of interacting with other persons and things. When there are fundamental changes in the natural world, old philosophical problems will lose their force and new ones will emerge. Thus, for example, the sharp separation between the subjects and objects of knowledge on which modern science relies creates, but cannot resolve, the philosophical problem of skepticism. After exploring this idea as it applies to the philosophical problems of modernity, we will look at several examples of feminist theory and practice in order to ask how distinctively post-modern projects give rise to different philosophical problems. Examples include challenging conventional conceptions of selfhood and subjectivity, rethinking the nature and role of autonomy, and examining the need for something like objectivity as it arises in a diverse and divided world in which dependency on credentialed expertise is unavoidable. In addition to reading and class discussion, students will work in small groups on particular problems. Ideally, the class will include students with different preparation-some in philosophy and some in women's, gender, and sexuality studies. Readings will include, among others, Gloria Anzaldua, Maria Lugones, Hilde Lindemann, Uma Narayan, Patricia Williams, and Helen Longino, as well as some of the instructor's work-in-progress.

**PHIL 4010 Ancient Philosophers**

3 credit(s), max credits 6; prereq 3001 or instr consent; Instructor: Peterson, Sandra L

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

**PHIL 4605 Space and Time**

3 credit(s); prereq Courses in [philosophy or physics] or instr consent; Credit will not be granted if credit has been received for: PHIL 5605; Instructor: Nounou, Antigone M.

Description: Is space a substance or does it suffice to speak of spatial relations between physical objects? Newton and Leibniz actually held opposing views and put forth ingenious arguments to support them, but neither managed to convince the other. Some four hundred years later, and despite the fact that space and time have merged into spacetime, as required by modern physics, one important question that philosophers and scientists still ask is whether spacetime is a substance or whether it suffices to speak about spatiotemporal relations between physical objects or events. Probably there isn’t a definite answer to this question either, yet by attempting to answer it physicists and philosophers probed deeply into the theories involved and their interpretations, and got extremely interesting insights and views, some of which we will try to explore in this course.

**PHIL 4822 Philosophy and Feminist Theory**

3 credit(s); prereq 8 crs in [philosophy or women's studies] or instr consent; Instructor: Scheman, Naomi

Description: This course starts with the idea that philosophical problems are unresolved remainders of projects through which we shape our selves and our ways of interacting with other persons and things. When there are fundamental changes in the natural world, old philosophical problems will lose their force and new ones will emerge. Thus, for example, the sharp separation between the subjects and objects of knowledge on which modern science relies creates, but cannot resolve, the philosophical problem of skepticism. After exploring this idea as it applies to the philosophical problems of modernity, we will look at several examples of feminist theory and practice in order to ask how distinctively post-modern projects give rise to different philosophical problems. Examples include challenging conventional conceptions of selfhood and subjectivity, rethinking the nature and role of autonomy, and examining the need for something like objectivity as it arises in a diverse and divided world in which dependency on credentialed expertise is unavoidable. In addition to reading and class discussion, students will work in small groups on particular problems. Ideally, the class will include students with different preparation-some in philosophy and some in women's, gender, and sexuality studies. Readings will include, among others, Gloria Anzaldua, Maria Lugones, Hilde Lindemann, Uma Narayan, Patricia Williams, and Helen Longino, as well as some of the instructor's work-in-progress.

**PHIL 4993 Directed Studies**

1-3 credit(s), max credits 6, 6 repeats allowed; prereq instr consent, dept consent, college consent; Instructor: STAFF

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

**PHIL 5202 Symbolic Logic II**

3 credit(s), max credits 6, 6 repeats allowed; prereq instr consent, dept consent, college consent; Instructor: STAFF

Description: Students may contact the instructor or department for information.
PHIL 5222 Philosophy of Mathematics
3 credit(s); prereq College level logic or mathematics course or instr consent ;
Instructor: Hellman, Geoffrey
Description: Fundamental issues and leading traditions in philosophy of mathematics will be presented. What, if anything, is mathematics about? What is mathematical truth? How are axioms justified, especially involving the infinite? Approaches and related issues to be considered include: classical (platonist) logicism of Frege and Russell, the structuralist perspective of Dedekind, conventionalist logicism of Carnap, elements of intuitionism, Hilbert's program, the impact of Gödel's incompleteness theorems, and a glimpse at some leading contemporary developments, especially concerning structuralism. Prerequisites: A course in symbolic logic (through completeness of first-order logic), or a course in college-level mathematics (calculus, real analysis, etc.)
Style: 75% Lecture, 25% Discussion.
Grading: 40% mid exam, 40% final exam, 20% class participation.
Exam Format: take-home questions, essay type

PHIL 5415 Philosophy of Law
3 credit(s); prereq 1003 or 1004 or 3302 or social science major or instr consent ;
Instructor: Bix, Brian H
Description: This course starts with the idea that philosophical problems are unresolved remainders of projects through which we shape our selves and our ways of interacting with other persons and things. When there are fundamental changes in fundamental projects, old philosophical problems will lose their force and new ones will emerge. Thus, for example, the sharp separation between the subjects and objects of knowledge on which modern science relies creates, but cannot resolve, the philosophical problem of skepticism. After exploring this idea as it applies to the philosophical problems of western modernity, we will look at several examples of feminist theory and practice in order to ask how distinctively post-modern projects give rise to different philosophical problems. Examples include challenging unitary conceptions of selfhood and subjectivity, rethinking the nature and role of autonomy, and examining the need for (something like) objectivity as it arises in a diverse and divided world in which dependency on credentialed expertise is unavoidable. In addition to reading and class discussion, students will work in small groups on particular problems. Ideally, the class will include students with different preparation-some in philosophy and some in women's, gender, and sexuality studies. Readings will include, among others, Gloria Anzaldua, Maria Lugones, Hilde Lindemann, Uma Narayan, Patricia Williams, and Helen Longino, as well as some of the instructor's work-in-progress.
Style: 40% Lecture, 60% Discussion.
Grading: 60% reports/papers, 20% in-class presentation, 10% class participation, 10% other evaluation. web participation

PHIL 5993 Directed Studies
1-3 credit(s); max credits 6, 6 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

PHIL 8420 Seminar: Political Philosophy
3 credit(s), max credits 6; prereq 4321 or 4414 or instr consent;
Instructor: Holtman, Sarah William
Description: Student may contact the instructor or department for information.

PHIL 8510 Seminar: Aesthetics Studies
3 credit(s), max credits 6;
Instructor: Kac, Michael B
Description: Student may contact the instructor or department for information.

PHIL 8670 Seminar: Philosophy of Science
3 credit(s), max credits 6; prereq instr consent;
Instructor: Waters, C. Kenneth
Description: Student may contact the instructor or department for information.

PHIL 5056 Space and Time
3 credit(s); prereq Courses in [philosophy or physics] or instr consent; Credit will not be granted if credit has been received for: PHIL 4605;
Instructor: Nounou, Antigone M.
Description: Is space a substance or does it suffice to support the relation of spatial relations between physical objects? Newton and Leibniz actually held opposing views and fell into acts of ingenious arguments to support them, but neither managed to convince the other. Some four hundred years later, and despite the fact that space and time have merged into spacetime, as required by modern physics, one important question that philosophers and scientists still ask is whether spacetime is a substance or whether it suffices to speak about spatiotemporal relations between physical objects or events. Probably there isn't a definite answer to this question either, yet by attempting to answer it physicists and philosophers probed deeply into the theories involved and their interpretations, and got extremely interesting insights and views, some of which we will try to explore in this course.
Style: 75% Lecture, 25% Discussion.

PHIL 5622 Philosophy and Feminist Theory
3 credit(s); prereq 8 crs in [philosophy or women's studies] or instr consent; Credit will not be granted if credit has been received for: PHIL 4622;
Instructor: Schematic, Naomi
Description: This course starts with the idea that philosophical problems are unresolved remainders of projects through which we shape our selves and our ways of interacting with other persons and things. When there are fundamental changes in fundamental projects, old philosophical problems will lose their force and new ones will emerge. Thus, for example, the sharp separation between the subjects and objects of knowledge on which modern science relies creates, but cannot resolve, the philosophical problem of skepticism. After exploring this idea as it applies to the philosophical problems of western modernity, we will look at several examples of feminist theory and practice in order to ask how distinctively post-modern projects give rise to different philosophical problems. Examples include challenging unitary conceptions of selfhood and subjectivity, rethinking the nature and role of autonomy, and examining the need for (something like) objectivity as it arises in a diverse and divided world in which dependency on credentialed expertise is unavoidable. In addition to reading and class discussion, students will work in small groups on particular problems. Ideally, the class will include students with different preparation-some in philosophy and some in women's, gender, and sexuality studies. Readings will include, among others, Gloria Anzaldua, Maria Lugones, Hilde Lindemann, Uma Narayan, Patricia Williams, and Helen Longino, as well as some of the instructor's work-in-progress.
Style: 40% Lecture, 60% Discussion.
Grading: 60% reports/papers, 20% in-class presentation, 10% class participation, 10% other evaluation. web participation
PE 1012 Beginning Running
OPT No Aud, 1 credit(s);
Instructor: Eaton, Lois M

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 1029 Handball
OPT No Aud, 1 credit(s);
Instructor: Carlson, James Earl
Description: Hand and eye coordination, footwork in practice and game conditions, and skills and strategies of service and rally for the court sport handball (four-wall version). Novice to intermediate levels of play accommodated.

PE 1031 Sabre Fencing
OPT No Aud, 1 credit(s);
Instructor: Aman, Joshua Emanuel
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: Kang, Hyoungkil
Description: Fundamentals including etiquette, terminology, game rules for singles and doubles, footwork, shot selection, and strategy.

PE 1032 Badminton
OPT No Aud, 1 credit(s);
Instructor: Sobalvarro, J Roberto
Description: Fundamentals of racquetball, including equipment; safety and etiquette; terminology; game rules of singles, doubles, and cutthroat; grips; basic strategies; serves and shots.

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 Jiu-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.
Exam Format: Matching, multiple choice, true/false

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 be reviewed throughout the entire semester. A portion of the latter half of the course will be devoted to application of these basic techniques. Purchase of Gi uniform is encouraged; Gi uniform is available through the instructor at a cost of $35.
Style: 15% Discussion. training; 5% exams
Grading: 20% mid exam, 70% final exam, 10% other evaluation.
Attendance
Exam Format: Mid-term: 20 short multiple choice questions; Final: physical test on basic movements worked on during the semester

PE 1036 Racquetball
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 rackets 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 movements worked on during the semester

PE 1037 Squash Racquets
OPT No Aud, 1 credit(s);
Instructor: Scott, Andrew Thomas
Description: Fundamentals of racquetball, including equipment; safety and etiquette; terminology; game rules of singles, doubles, and cutthroat; grips; basic strategies; serves and shots.

PE 1038 Beginning Tennis
OPT No Aud, 1 credit(s);
Instructor: Kneissl, Gerald Vernon
Description: Fundamental strokes, including forehands,
backhands, volleys, lobs, overheads, and serves; introduction to doubles play; terminology, rules, and etiquette.

**PE 1038 Beginning Tennis**  
OPT No Aud, 1 credit(s);  
Instructor: Kang, Hyoungkil  
**Description:** Fundamental strokes, including forehands, backhands, volleys, lobs, overheads, and serves; introduction to doubles play; terminology, rules, and etiquette.

**PE 1042 Orienteering**  
OPT No Aud, 1 credit(s);  
Instructor: Marchand, Genevieve  
**Description:** This course is designed for students with no experience in the sport of orienteering. It will address the fundamentals of basic land navigation skills as they apply to orienteering. The class is experientially based and active participation is required. Classes will meet at different venues throughout the semester, such as Como Park and Theodore Wirth Park. You are also expected to go to two orienteering meets taking place on the weekends. You are expected to provide your own transportation to all class sites. Orienteering is an outdoor activity and most of the class time will be spent outside. Plan to dress accordingly. While this class is not intended to be competitive, you should expect a medium to high level of physical exertion. Regardless of weather, assume class is meeting unless contacted by the instructor.  
**Style:** 10% Lecture, 90% Field Trips.  
**Grading:** 20% mid exam, 20% final exam, 30% class participation, 30% other evaluation.  
**Orienteering events (MNOC):**  
**Exam Format:** Practical course and some written questions.

**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: 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: Marchand, Genevieve  
**Description:** Fundamentals of Tae Kwon Do. Principles of martial arts, body mechanics of Tae Kwon Do, practical self-defense.

**PE 1047 Backpacking**  
OPT No Aud, 2 credit(s); prereq Good general health, no back problems;  
Instructor: Lewis, T. Grant  
**Description:** Packing/fitting a backpack, trip planning, trail safety, gear selection, backcountry cooking, minimum impact camping/travel. Emphasizes practical skills and best practices. Four-day backpacking trip.

**PE 1047 Backpacking**  
OPT No Aud, 2 credit(s); prereq Good general health, no back problems;  
Instructor: Lewis, T. Grant  
**Description:** Packing/fitting a backpack, trip planning, trail safety, gear selection, backcountry cooking, minimum impact camping/travel. Emphasizes practical skills and best practices. Four-day backpacking trip.

**PE 1048 Bowling**  
OPT No Aud, 1 credit(s);  
Instructor: Schmidt, Michael F  
**Description:** Fundamentals, including stance, approach and delivery, scoring, bowling terminology, and etiquette.

**PE 1053 Ice Skating**  
OPT No Aud, 1 credit(s);  
Instructor: Sucha, Amy

This information is accurate as of 6/9/2008 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: Basic turns, basic stops, balance techniques, and various other skills from both the forward and backward positions. Equipment, safety issues, ice skating terminology.

PE 1055 Golf
OPT No Aud, 1 credit(s);
Instructor: Chung,Vinh Khai
Description: Proper grip, stance, ball address, swing, club selection, psychological management, rules, and etiquette. Basic instruction in analyzing, assisting with, and coaching golf.

PE 1055 Golf
OPT No Aud, 1 credit(s);
Instructor: Miki,Cody Lee
Description: Proper grip, stance, ball address, swing, club selection, psychological management, rules, and etiquette. Basic instruction in analyzing, assisting with, and coaching golf. The first day of class will take place at the University of Minnesota Les Bolstad Golf Course Clubhouse/Cafeteria, by the putting greens. Directions to the golf course can be found at www.uofmgolf.com. This course will be taught in cooperation with PGA pros through the PGA Foundation. This course is funded by a grant from PGA Foundation called Golf: For Business and Life.
Style: 5% Lecture, 5% Discussion, 5% Demonstration.

PE 1056 Nordic (Cross-Country) Skiing
OPT No Aud, 1 credit(s);
Instructor: Morrissey,Sean Patrick
Description: Introduction to the fundamental techniques of classical and freestyle cross country skiing. Students will be taught through lecture and direct experience on cross country skiing trails.

PE 1065 Beginning Tumbling and Gymnastics
OPT No Aud, 1 credit(s);
Instructor: Strother,Clayton Kent
Description: Rolls, handstands, cartwheels, extensions, hand springs, tucks (flips). Spotting techniques. Skills on bars, vault, and beam.

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 1107 Intermediate Swimming
OPT No Aud, 1 credit(s); prereq 1007 or equiv, proficient ability to swim 100 meters or instr consent;
Instructor: Larson,Adam James
Description: Intermediate swimming skills. Fundamentals of swimming and hydrodynamics.

PE 1107 Intermediate Swimming
OPT No Aud, 1 credit(s); prereq 1007 or equiv, proficient ability to swim 100 meters or instr consent;
Instructor: Theut,Katrina Marie
Description: Intermediate swimming skills. Fundamentals of swimming and hydrodynamics.

PE 1133 Intermediate Foil Fencing
OPT No Aud, 1 credit(s); prereq 1033 or equiv or instr consent;
Instructor: Sobalvarro,J Roberto
Description: Intermediate/advanced technical/tactical actions in foil, rudimentary epee skills, intermediate/advanced footwork. Rules, officiating, bout tactics.

PE 1135 Intermediate Karate
OPT No Aud, 1 credit(s); prereq 1035 or equiv or instr consent;
Instructor: Fusaro,Robert L
Description: Techniques of Japanese traditional Shotokan Karate taught through Ippon Kumite (one step sparring), San Kumite (three step sparring), and Heian Shodan Kata/Nidan Kata (forms). Testing for orange belt is optional.

PE 1146 Intermediate Tae Kwan Do
OPT No Aud, 1 credit(s); prereq 1046, previous Tae Kwon Do experience (World Tae Kwon Do Federation sanctioned), basic white Tae Kwon Do uniform;
Instructor: Kim,Il Keun
Description: Continuation of 1046. Focuses on Olympic-style intermediate skills/techniques. Self-defense techniques for men/women.

PE 1154 Figure Skating
OPT No Aud, 1 credit(s); prereq 1053 or equiv or instr consent;
Instructor: Sucha,Amy
Description: This class is for intermediate to advanced figure skaters or those who have successfully completed PE 1053. Previous knowledge of skating fundamentals such as forward and backward crossovers, turns and stopping is required. Advanced skating skills will be taught with an emphasis on Jumps, Spins, Moves in the Field footwork sequences, beginning Ice Dance and choreography. Figure Skate rental available on site.
Style: 25% Lecture, 75% Laboratory.
Grading: 35% in-class presentation, 30% class participation.
Exam Format: Short answer

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 $95 course fee.
Style: 50% Lecture, 50% Laboratory.
Grading: 33% final exam, 33% quizzes, 33% class participation.
Exam Format: multiple choice

PE 1306 Lifeguard Training
OPT No Aud, 1 credit(s); prereq [Proficiently swim 500 meters, at least 17 yrs old] or instr consent ;
Instructor: Stallkamp,Sarah Elizabeth
Description: Upon completion, certifications are obtained in the following categories: American Red Cross Lifeguarding Today and First Aid; CPR for the Professional Rescuer; and Waterfront Lifeguarding.

PE 1411 Water Safety Instructor
OPT No Aud, 2 credit(s); prereq [Proficiency in basic strokes, completion of skill/written pre tests] or instr consent;
Instructor: Theut,Katrina Marie
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Instructor</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>PT 6216</td>
<td>Clerkship IV</td>
<td>A-F</td>
<td>Description: Student may contact the instructor or department for information.</td>
<td>Lojovich, Jeanne Marie</td>
<td>A-F only, 1 credit(s); prereq Registered 2nd yr PT student;</td>
</tr>
<tr>
<td>PT 6221</td>
<td>Therapeutic Procedures</td>
<td>A-F</td>
<td>Description: Student may contact the instructor or department for information.</td>
<td>Olson-Kellogg, Becky Jo</td>
<td>A-F only, 4 credit(s); prereq Registered PT student;</td>
</tr>
<tr>
<td>PT 6228</td>
<td>Scientific Foundations II: Neuromotor Control</td>
<td>A-F</td>
<td>Description: Student may contact the instructor or department for information.</td>
<td>Kimberley, Teresa Jacobson</td>
<td>A-F only, 3 credit(s), max credits 45, 1 repeat allowed; prereq Registered PT student;</td>
</tr>
<tr>
<td>PT 6284</td>
<td>Musculoskeletal Rehabilitation II</td>
<td>A-F</td>
<td>Description: Student may contact the instructor or department for information.</td>
<td>Anderson, Kathleen</td>
<td>1-4 credit(s); prereq Regis PT student;</td>
</tr>
<tr>
<td>PT 6287</td>
<td>Neurorehabilitation I</td>
<td>A-F</td>
<td>Description: Student may contact the instructor or department for information.</td>
<td>Lojovich, Jeanne Marie</td>
<td>A-F only, 8 credit(s); prereq Regis PT student;</td>
</tr>
<tr>
<td>PT 6297</td>
<td>Clinical Internship III</td>
<td>S-N</td>
<td>Description: Student may contact the instructor or department for information.</td>
<td>Lojovich, Jeanne Marie</td>
<td>S-N only, 10 credit(s); prereq Registered PT student;</td>
</tr>
<tr>
<td>PT 6298</td>
<td>Clinical Internship IV</td>
<td>S-N</td>
<td>Description: Student may contact the instructor or department for information.</td>
<td>Lojovich, Jeanne Marie</td>
<td>S-N only, 10 credit(s); prereq Registered PT student;</td>
</tr>
<tr>
<td>PT 7001</td>
<td>Topics in Musculoskeletal PT</td>
<td>A-F</td>
<td>Description: Student may contact the instructor or department for information.</td>
<td>Anderson, Kathleen</td>
<td>A-F only, 1-6 credit(s), max credits 6, 6 repeat allowed; prereq Admitted in transitional doctor of physical therapy program;</td>
</tr>
<tr>
<td>PT 7003</td>
<td>Topics in Integumentary Physical Therapy</td>
<td>A-F</td>
<td>Description: Student may contact the instructor or department for information.</td>
<td>Cole, Pamela S</td>
<td>A-F only, 2 credit(s); prereq Admitted in transitional doctor of physical therapy program;</td>
</tr>
<tr>
<td>PT 7005</td>
<td>Topics in Pediatric Physical Therapy</td>
<td>A-F</td>
<td>Description: Student may contact the instructor or department for information.</td>
<td>Kimmerle, Teresa Jacobson</td>
<td>A-F only, 1 credit(s); prereq Admitted in transitional doctor of physical therapy program;</td>
</tr>
</tbody>
</table>

This information is accurate as of 6/9/2008 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, 1-7 credit(s), max credits 7, 7 repeats allowed; prerequisite Grad PT major. Instructor: Ludewig, Paula M.
Description: Instructor: Ludewig, Paula M. for information.

PT 8193 Research Problems in Physical Therapy
A-F only, 1-7 credit(s), max credits 7, 7 repeats allowed; prerequisite Grad PT major. Instructor: Lowe, Dawn Annette. Description: Instructor: Lowe, Dawn Annette for information.

PT 8193 Research Problems in Physical Therapy
A-F only, 1-7 credit(s), max credits 7, 7 repeats allowed; prerequisite Grad PT major. Instructor: Kuklina, Carl G. Description: Instructor: Kuklina, Carl G. for information.

PHYS 1001W Energy and the Environment
4 credit(s); prerequisite 1 yr high school algebra; Meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core; meets CLE req of Writing Intensive; Instructor: STAFF. Description: This course addresses current issues of the relationship between energy use and the environment by starting with the fundamental physics principles of force and energy, and demonstrating how these concepts apply to Electricity and Magnetism, Thermodynamics, Chemical Physics and Nuclear Power generation. These principles are applied to specific applications by examining topics such as power production, acid rain and fuel resources. The consequences of fundamental physics on public policy will also be discussed in this context. Math skills at the level of high school algebra are assumed. The accompanying laboratory is a series of short experiments which illustrate the concepts as they are presented in class.

PHYS 1101W Introductory College Physics I
4 credit(s); prerequisite High school algebra, plane geometry, trigonometry; primarily for students interested in technical areas. Credit will not be granted if credit received for: 1107, 1201W, 1301W, 1401V; Meets CLE req of Physical Science/Lab Core; meets CLE req of Writing Intensive; Instructor: STAFF. Description: This is the first part of a course sequence 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); prerequisite [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 Science/Lab Core; 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, 1272r or 1282r 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 Science/Lab Core; 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 working 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 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 Science/Lab Core; 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.
Grading: HW or ICG's Exam Format: A combination of quantitative problem solving and short qualitative statements or multiple choice

PHYS 5072 Best Practices in College Physics Teaching
1-3 credit(s), max credits 5, 3 repeats allowed;
Instructor: Kubota,Yuichi
Description: Student may contact the instructor or department for information.

PHYS 3095 Problems in Physiology
1-5 credit(s), max credits 20, 20 repeats allowed; concurrent enrollment in college physiology, instr consent;
Instructor: Barnett,Vincent A
Description: Student may contact the instructor or department for information.

PHSL 4095 Honors Problems in Physiology
A-F only, 2-4 credit(s); prereq 3061 or 3063 or 5061 or instr consent;
Instructor: Levitt,David George
Description: This course uses the theme of the The six million dollar man to develop an in depth understanding of the physiology of different organ systems. Comparison of human organs versus advanced synthetic devices provides new insights into the complexity of human physiology. Some of the topics covered include: artificial heart, kidney, pancreas and lung; comparison of the eye versus the digital camera; and artificial intelligence of pattern recognition. The course is strongly web based. The emphasis is on student reading and analysis of current literature. Students will be required to submit a short analytical paper each week. The papers will be read and discussed on line by the instructor and the entire class. The course is designed for upper division and graduate biology and engineering students and the only prerequisite is physiology 3061 or equivalent.
Style: 100% Lecture.
Grading: 80% reports/papers, 10% in-class presentation, 10% class participation.

PHSL 4094 Research in Physiology
1-5 credit(s), max credits 20, 20 repeats 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 repeats allowed; prereq instr consent;
Instructor: Katz,Stephen A.
Description: Student may contact the instructor or department for information.

PHSL 5095 Problems in Physiology
PHSL 5095 Problems in Physiology  
1-5 credit(s); max credits 20, 20 repeats allowed; prereq instr consent;  
Instructor: Katz, Stephen A.  
Description: Student may contact the instructor or department for information.

PHSL 5101 Human Physiology  
5 credit(s); prereq Grad student;  
Instructor: Wangensteen, Douglas  
Description: This course is taken by physical therapy and graduate students and is taught concurrently with the physiology course for first year medical students (PHSL 6101). Topics presented are cardiovascular, respiratory, gastrointestinal, renal, muscle, and exercise physiology. Lectures, demonstration/lab sessions, written assignments and exams are the same for students in both PHSL 5101 and PHSL 6101. It is assumed that students in PHSL 5101 will have, or be able to acquire, a minimal background in anatomy, histology and biochemistry. Because this course follows the medical school schedule, it begins the first week in January and ends the first week in May. For a lecture and demonstration/lab schedule contact the course director at wange001@umn.edu.  
Style: 90% Lecture, 5% Laboratory. 5% Demonstration.  
Grading: 25% mid exam, 38% final exam, 25% quizzes, 12% written homework.

PHSL 5116 Advanced Clinical Physiology II for Nurse Anesthetists  
A-F only, 3 credit(s); prereq 5115, instr consent;  
Instructor: Anderson, Lisa Carney  
Description: Student may contact the instructor or department for information.

PHSL 5315 Human Power, Sports Performance, and Disease Treatment  
2 credit(s); prereq Major in [physiology or medicine or physical therapy or kinesiology or coaching/elite athletic training], instr consent;  
Instructor: Halvorsen II, Daniel K  
Description: Student may contact the instructor or department for information.

PHSL 5355 Directed Study: Humans in Extreme Environments  
1-5 credit(s); max credits 25, 5 repeats allowed; prereq [3061 or equiv], instr consent;  
Instructor: Koscheyev, Victor S  
Description: Student may contact the instructor or department for information.

PHSL 5356 Research: Humans in Extreme Environments  
1-5 credit(s); max credits 25, 5 repeats allowed; prereq [3061 or equiv], instr consent;  
Instructor: Koscheyev, Victor S  
Description: Student may contact the instructor or department for information.

PHSL 5444 Muscle  
3 credit(s); prereq 3061 or 3071 or 5061 or BioC 3021 or BioC 4331 or instr consent Credit will not be granted if credit has been received for MdBc 5444 or VPB 5444; Credit will not be granted if credit has been received for: BIOC 5444;  
Instructor: Thomas, David D  
Description: Introduction to physiology, biochemical regulation, and physical chemistry of muscle contraction. Prerequisites: undergraduate courses in biochemistry or physiology.  
Style: 80% Lecture, 15% Discussion, 5% Laboratory.  
Grading: 25% mid exam, 40% final exam, 35% reports/papers.  
Exam Format: essay, problem solving

PHSL 5510 Advanced Cardiac Physiology and Anatomy  
2-3 credit(s); prereq instr consent;  
Instructor: Iaizzo, Paul Anthony  
Description: Course Objectives: 1) Provide an overview of the physiology and anatomy underlying cardiac function 2) Provide details on cardiac microcirculation, cellular function and oxygen delivery 3) Provide students with an understanding of cardio-pathophysiology and current clinical treatments 4) Allow students to perform dissection within the Human Gross Anatomy Lab 5) Provide students with various demonstrations on monitoring cardiac function.

PHSL 6051 Systems Physiology  
A-F only, 4 credit(s); prereq [Prev or current] neuroscience course; [biochemistry, human anatomy] recommended;  
Instructor: Katz, Stephen A.  
Description: Student may contact the instructor or department for information.

PHSL 8216 Selected Topics in Autonomic and Neuroendocrine Regulation  
S-N only, 1 credit(s); Credit will not be granted if credit has been received for: NSC 8216;  
Instructor: Engelhard, William C  
Description: Student may contact the instructor or department for information.

Plant Biological Sciences  

PBS 3123 Research Ethics in the Plant and Environmental Sciences  
S-N only, 0.5 credit(s); prereq Grad student in [applied plant sciences or plant pathology or plant biological sciences or soil science];  
Instructor: Cohen, Jerry D  
Description: Student may contact the instructor or department for information.

Plant Biology  

PBIOL 1212 Plants and Society  
3 credit(s); prereq Intended for non-biological sciences majors; Meets CLE req of Environment Theme;  
Instructor: Charvat, Iris D  
Description: This class explores the ways that plants have been used by human societies throughout history. It is designed for undergraduate non-majors and includes basic information about plant structure, function, and reproduction. Topics discussed in this course include: the origins of agriculture and early-cultivated plant species, ecosystem destruction and restoration, and diversity. As part of the diversity study, in depth examination of plant groups such as medicinal plants, fiber plants, herbs and spices, poisonous and allergy plants, fungi, beverage plants, and psychoactive plants are investigated. Although not specifically intended as a laboratory course, Plant Biology 1212 gives the students direct experience with plants through frequent demonstrations in lectures using flowers, fruits and various plants products. Six of the scheduled class periods consist of trips to the greenhouses on the St. Paul campus to observe plant adaptations to diverse habitats and learn to identify some common cultivated species and their uses. The number of class sessions held in the greenhouse has increased because students are very positive about the greenhouse exercises, an active way to learn the material. Written assignments include summaries of plant information papers, selected journal articles, and greenhouse worksheets.  
Style: 45% Lecture, 5% Film/Video, 10% Discussion, 22% Laboratory, 8% Small Group Activities, 5% Student Presentation, 5% Demonstration. Time spent at the greenhouse in St. Paul is
PBIO 4511 Flowering Plant Diversity
3 credit(s); prereq BIOL 1001 or 1009 or 1009H or 2002; Credit will not be granted if credit has been received for: PBIO 4611; Instructor: Weiblen, George D

Description: Flowering plants are a fascinating and integral part of the diversity of life on earth. The study of systematics provides a framework for understanding the origin and evolutionary relationships of this diversity. The course has two main objectives--learning to recognize major groups of flowering plants and introducing the theory and practice of phylogenetic systematics. New insights on plant evolutionary history provided by DNA sequences will be presented in a revised system of flowering plant classification. Lectures, laboratory exercises, and field trips integrate this new approach with broader topics including morphology, development, ecology, evolution, conservation, and ethnobotany.

Style: 30% Lecture, 10% Discussion, 30% Laboratory, 5% Student Presentation, 5% Demonstration, 10% Field Trips, 5% Guest Speakers, 5% Web Based. Field trips
Grading: 20% mid exam, 40% final exam, 15% quizzes, 10% class participation, 15% laboratory evaluation.

Exam Format: Short answer, essay

PBIO 4516W Plant Cell Biology: Writing Intensive
3 credit(s); prereq [ Biol 2022 or Biol 3002 or Biol 3007], [ Biol 3021 or Biol 3021 or Biol 4003] Credit will not be granted if credit has been received for PBIO 5414; Credit will not be granted if credit has been received for: PBIO 5516; Meets CLE req of Writing Intensive;
Instructor: Ward, John M

Description: This course is an introduction to current research topics in Plant Cell Biology. Published reviews and primary research papers in the field will be used as text. The goal is to develop an understanding of how cellular structures function and contribute to cell growth and development. In addition to learning how to read primary literature, emphasis will be placed on developing a clear and concise writing style appropriate for incisive criticism of scientific papers. Readings will include 8-10 reviews that will be covered by lectures during the first 1/3 of the course. Approximately 12 primary research papers will be covered in the last 2/3 of the course. Students will choose at least 5 of the 12 primary research papers and write a one page critique which will be due on the day that the paper is discussed in class. These will be graded for scientific content. In addition, students enrolled in 4516W will receive comments concerning the writing style of their paper. Students will rewrite at least 5 critiques of primary research papers. The length of the resubmitted paper should be 2-3 pages. The revised critique should include a clear and concise presentation of the content of the scientific paper, the impact of the paper on our understanding of the research topic, and criticisms of the paper derived from discussions in the class. The revised critiques will be returned with comments for improvement. The final draft will be graded on content, clarity, and style.

Style: 70% Lecture, 30% Discussion. Grading:
Grading: 25% mid exam, 25% final exam, 50% reports/papers.
Exam Format: Short answer

PBIO 4601 Topics in Plant Biochemistry
A-F only, 3 credit(s); prereq [ BIOL 1002 or BIOL 1009 or BIOL 2003], CHEM 2021;
Instructor: Gleason, Florence K

Description: This course is intended for upper level undergraduate students and graduate students who need a background course in biochemistry that is specifically focused on processes unique to photosynthetic organisms. The course will start with an analysis of photosynthesis and carbon metabolism in plants. Basic metabolic pathways for the synthesis of lipids, steroids, and aromatic amino acids will be covered as a background for the introduction to natural products such as lignin, flavonoids, and alkaloids.

Style: 70% Lecture, 30% Discussion. Grading:
Grading: 30% mid exam, 25% final exam, 20% reports/papers, 10% special projects, 10% in-class presentation, 5% problem solving.
Exam Format: Short answers, essay

PBIO 4793W Directed Studies: Writing Intensive
S-N only, 1-7 credit(s), max credits 7, 7 repeats 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 repeats allowed; prereq instr 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 repeats 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 repeats 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 repeats 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 repeats 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 repeats 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 repeats 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 repeats 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 repeats 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 repeats allowed;
prereq instr consent;
Instructor: Biesboer, David 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 repeats allowed;
prereq instr consent;
Instructor: Chanvat, Iris 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 repeats allowed;
prereq instr consent;
Instructor: Gantt, J. Stephen
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 repeats allowed;
prereq instr consent;
Instructor: Wick, Susan M
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 repeats allowed;
prereq instr consent;
Instructor: Brambl, Robert Morgan
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 repeats allowed;
prereq instr consent;
Instructor: Snustad, D. Peter
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 repeats allowed;
prereq instr consent;
Instructor: Sillflow, Carolyn 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 repeats allowed;
prereq instr consent;
Instructor: Ni, Min
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 repeats allowed;
prereq instr consent;
Instructor: Ward, John M
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 repeats allowed;
prereq instr consent;
Instructor: VandenBosch, Kathryn A
Description: Student may contact the instructor or department for information.

PBIO 5516 Plant Cell Biology
3 credit(s);
prereq [Biol 2022 or Biol 3007 or Biol 3022], [Biol 3021 or BioC 3021 or Biol 4003] Credit will not be granted if credit has been received for PBio 5414; Credit will not be granted if credit has been received for: PBIO 4516W;
Instructor: Ward, John M
Description: This course is an introduction to current research topics in Plant Cell Biology. Published reviews and primary research papers in the field of Plant Cell Biology will be used as text for this class. The goal is to develop an understanding of how cellular structures function and contribute to cell growth and development. In addition to learning how to read primary literature, emphasis will be placed on developing a clear and concise writing style appropriate for incisive criticism of scientific papers. READING ASSIGNMENTS: This will include 8-10 reviews that will be covered by lectures during the first 1/3 of the course. Approximately 12 primary research papers will be covered in the last 2/3 of the course. Students will choose at least 5 of the 12 primary research papers and write a one page critique which will be due on the day that the paper is discussed in class. These will be graded for scientific content. The 5 highest scores will constitute 25% of the final grade. EXAMS: Two exams and one final, each worth 100 points will be given. All three exams will count toward the final grade. GRADING (total of 400 points): 3 exams 100 points each; 5 best scores for
PLPA 3090 Research in Plant Pathology
1-4 credit(s), max credits 4, 1 repeat allowed;
Instructor: STAFF
Description: Assignment of a special problem to undergraduates desiring an opportunity for independent research in plant pathology. The student determines the problem.
Style: 100% Laboratory.
Grading: 100% laboratory evaluation.

PLPA 4096 Professional Experience Program: Internship
S-N only, 1-3 credit(s), max credits 6, 6 repeats allowed;
prereq COAFES undergrad, complete internship contract available in COAFES Career Services before registering; UC only:
Instructor: STAFF
Description: Supervised practicum professional experience in plant pathology. Practicum may be completed in government, higher education or private industry setting. Directed toward senior undergraduates.
Grading: 100% other evaluation. Job performance, self-evaluation

PLPA 5003 Diseases of Forest and Shade Trees
3 credit(s);
Instructor: Blanchette,Robert A
Description: This course provides an overview of tree diseases in urban and forested areas. It covers diseases that have had significant impact on society, such as Dutch elm disease, oak wilt, chestnut blight, white pine blister rust, etc., as well as cankers, leaf diseases, root rot and other tree problems. A laboratory session each week enables students to get hands-on experience identifying disease agents, examining symptoms and learning appropriate control procedures. Emphasis will also be placed on ecological processes, biological and cultural control and host-parasite interactions. This course should be of value to anyone interested in biological sciences, natural resources and ecology. It is an essential class for individuals that will have a career in natural resources, but should also be useful to those interested in maintaining healthy trees at home, in urban areas or woodlands.
Style: 50% Lecture, 20% Discussion, 30% Laboratory.
Grading: 50% mid exam, 10% special projects, 30% laboratory evaluation, 10% problem solving.
Exam Format: Short answer, Short essay

PLPA 5090 Issues in Plant Pathology
1-4 credit(s), max credits 4, 1 repeat allowed;
Instructor: STAFF
Description: Current topics and research in plant pathology. Directed at undergraduates (junior and senior) as well as graduate students. Consult Class Schedule or department for current offering.
Style: 50% Lecture, 50% Discussion.
Grading: 100% special projects. depends on topic and instructor

PLPA 5103 Plant-Microbe Interactions
3 credit(s);
Instructor: Zeyen PhD,Richard J
Description: Plants and microbes evolved together, and the broad range of their interactions is just beginning to be understood. In fact, many plants and microbes cannot survive without each other. Their interactions range from mutually beneficial to harmful. In this course students learn the basic biology of several important interactions and explore their physiological and molecular bases. Topics include reciprocal recognition, signal transduction, beneficial reactions, defense and defense suppression strategies, and diseases. Selected examples important to ecological stability, economics, plant-microbe theory and genetic engineering are emphasized. Students engage in active learning. Graduate students majoring in Plant Pathology should take this course as PlPa 8103.
Grading: 100% Laboratory.
Exam Format: Self-evaluation, 10% problem solving.

PLPA 5003 Diseases of Forest and Shade Trees
3 credit(s);
Instructor: Blanchette,Robert A
Description: This course provides an overview of tree diseases in urban and forested areas. It covers diseases that have had significant impact on society, such as Dutch elm disease, oak wilt, chestnut blight, white pine blister rust, etc., as well as cankers, leaf diseases, root rot and other tree problems. A laboratory session each week enables students to get hands-on experience identifying disease agents, examining symptoms and learning appropriate control procedures. Emphasis will also be placed on ecological processes, biological and cultural control and host-parasite interactions. This course should be of value to anyone interested in biological sciences, natural resources and ecology. It is an essential class for individuals that will have a career in natural resources, but should also be useful to those interested in maintaining healthy trees at home, in urban areas or woodlands.
Style: 50% Lecture, 20% Discussion, 30% Laboratory.
Grading: 50% mid exam, 10% special projects, 30% laboratory evaluation, 10% problem solving.
Exam Format: Short answer, Short essay

University of Minnesota - Course Guide for Twin Cities Campus
Fall 2008

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Professor Zeyen utilizes the expertise of other faculty and resources for an in-depth and exposure to specific aspects of plant-microbe interactions.

**Style:** 30% Lecture, discussion-demonstration; 20% student presentations

**Grading:** 5% in-class presentation, 5% class participation, 30% other evaluation. plant-microbe profile assignment - written and class presentation; 60% written answers to thought questions

**Exam Format:** no exams

**PLPA 5203 Introduction to Fungal Biology**

- **3 credit(s); prereq BIOL 1009 or equiv**;
- **Instructor:** Hoffmeister, Dirk Oliver

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

**PLPA 5204 Plant Disease Management**

- **A-F only, 3 credit(s); prereq 3001 or 3002**;
- **Instructor:** Kurle PhD, James E.

**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 repeat 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.

**PLPA 8101 Causal Organisms of Plant Disease**

- **4 credit(s); prereq 5201 or equiv**;
- **Instructor:** Samac, Deborah A

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

**PLPA 8103 Plant-Microbe Interactions**

- **3 credit(s); prereq Intro course in biochemistry or plant physiology or equiv**;
- **Instructor:** Zeyen PhD, Richard J

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

**PLPA 8123 Research Ethics in Plant and Environmental Sciences**

- **S-N only, 0.5 credit(s); prereq Enrolled in a plant/environmental grad research prog; Credit will not be granted if credit has been received for: APSC 8123**;
- **Instructor:** Steffenson, Brian Joel

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

**PLPA 8200 Seminar**

- **A-F only, 1 credit(s)**;
- **Instructor:** Ishimaru, Carol A

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

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**Polish 214 Nolte Center**

**PLSH 1102 Beginning Polish**

- **5 credit(s); prereq 1101 or equiv**;
- **Instructor:** Polakiewicz, Leonard Anthony

**Description:** This course is second in a sequence of courses (Plsh 1101 and 1102) designed to develop basic proficiency in Polish in listening, speaking, reading, and writing, and to acquaint students with Polish culture. Students do regularly assigned grammar exercises, listen to audio tapes, and are required to participate in each class session through individual recitation, and whole-group and small-group interactive communicative activities. Two textbooks are used: Oscar Swan's "First Year Polish" and Leonard Polakiewicz's "Supplemental Materials for First Year Polish." Both textbooks are accompanied by audio tapes. As part of the four semester Polish language sequence, this course is designed to satisfy CLA language proficiency requirements. Target audience includes; undergraduate and graduate students, particularly those interested in East-Central European Area Studies, students who intend to engage in business in Poland and East-Central Europe, and those pursuing Slavic Studies.

**Style:** 40% Lecture. Recitation and interactive activities

**Grading:** 25% final exam, 35% quizzes, 30% class participation, 10% other evaluation. Final oral exam

**Exam Format:** Oral presentation, fill-ins, translations

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**Political Science 1414 Social Sciences Tower**

**POL 1001 American Democracy in a Changing World**

- **4 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core**;
- **Instructor:** Abernathy, Scott F

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

**POL 1025 Global Politics**

- **4 credit(s); Meets CLE req of International Perspect Theme; meets CLE req of Social Science Core**;
- **Instructor:** Krebs, Ronald R

**Description:** This course aims to provide students with an introduction to the central questions of international relations. Students will be introduced to theoretical traditions, but the course will focus primarily on explaining and understanding current and historical problems and cases 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, 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 controversial questions, and should be able to apply basic analytical frameworks and tools 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 1026 We and They: U.S. Foreign Policy**

- **4 credit(s); Meets CLE req of International Perspect Theme**;
- **Instructor:** Sampson III, Martin Wright

**Description:** The course examines the history of US foreign policy, various influences on the processes that determine US foreign policy, the institutional structures of those processes, and selected issues that are current in fall 2007. The objectives are (1) that people leave the course aware of major debates that have surrounded various decisions and events historically and other debates that pertain to the policy process; (2) people leave the course aware of major events and dates in the history of US foreign policy and aware of the institutions and processes that determine US foreign policy; and (3) that people are able to think about how this knowledge relates to selected events of fall 2007 and beyond.

**Style:** 85% 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.

**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 International Perspect Theme; meets CLE req of Social Science Core; Instructor: Samuels,David Julian
Description: Student may contact the instructor or department for information.

POL 1054H Honors: Repression and Democracy
4 credit(s); Instructor: Samuels,David Julian
Description: Student may contact the instructor or department for information.

POL 3070 Faculty-Supervised Individual Field Work
A-F only, 1-13 credit(s), max credits 13, 1 repeat allowed; prereq instr consent, dept consent; Instructor: Soper,Paul W
Description: Students conducting field research on politics or government may receive credit for academic work completed in association with their research. Typically students will write a substantial research paper (20 pages or more) that incorporates their field research into the political science literature on their topic. Students must arrange for credit no later than the end of the first week of the semester. To enroll for this course, contact the instructor.
Style: Fieldwork/Participant-Observation
Grading: 100% reports/papers.

POL 3080 Faculty-Supervised Individual Internships
A-F only, 3-13 credit(s), max credits 15, 3 repeats 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 journal, 5-7 page essay, 10 page 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); prereq 9 cr social sciences or instr consent; Meets CLE req of Mathematical Thinking Core; Instructor: Fang,Songying
Description: Student may contact the instructor or department for information.

POL 3306 Presidential Leadership and American Democracy
3-4 credit(s), max credits 4, 1 repeat allowed; prereq 1001 or equiv, non-pol sci grad major or instr consent; Credit will not be granted if credit has been received for: POL 5306; Instructor: Jacobs,Lawrence Rubin
Description: Student may contact the instructor or department for information.

POL 3310 Topics in American Politics
3 credit(s), max credits 6; Instructor: Strovitch,Dara
Description: Student may contact the instructor or department for information.

POL 3319 Education and the American Dream
A-F only, 3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core; Instructor: Abernathy,Scott F
Description: This course is intended as introduction to education politics and policy in the United States. It is designed for any student who might have an interest in exploring education, public policy, or American government. Topics will include equality of educational opportunity, educating democratic citizens, school finance, the role of political institutions in making educational policy, and efforts to reform and remake American education, including charter schools and private school vouchers. By the end of the course, students should have a basic understanding of the provision of education in the United States, including the ways in which education is governed and the institutions involved in that governance. Students should be able to critically reflect on the degree to which American education fulfills the sometimes-competitive goals Americans have for our schools.
Style: 75% Lecture, 25% Discussion.
Grading: 20% mid exam, 20% final exam, 40% reports/papers, 20% class participation.
Exam Format: essay, short essay

POL 3410 Topics in Comparative Politics: Families, Sex, and Children
3 credit(s), max credits 6; Instructor: Kelliher,Daniel R
Description: Student may contact the instructor or department for information.

POL 3410 Topics in Comparative Politics: Law and Justice in Latin America
3 credit(s), max credits 6; Instructor: Hilbink,Lisa
Description: Student may contact the instructor or department for information.

POL 3410 Topics in Comparative Politics: Islamic Politics
3 credit(s), max credits 6; Instructor: Collins,Kathleen A
Description: Student may contact the instructor or department for information.

POL 3410 Topics in Comparative Politics: Globalization
3 credit(s), max credits 6; Instructor: Ansell,Benjamin William
Description: Student may contact the instructor or department for information.

POL 3477 Political Development
3-4 credit(s), max credits 4, 1 repeat allowed; prereq 1054 or instr consent; Meets CLE req of Social Science Core; Instructor: Caraway,Teri Lynn
Description: How do we explain the vast disparities of wealth between North and South? Why have some countries in the post-colonial world, in particular those of East Asia, experienced stunning economic growth, while those in others parts of the world, most notably in Africa, been stuck in a development rut? This course will explore contending answers to these difficult but important questions. We will do so not only through discussions of different explanations of development and underdevelopment, but also through examining these issues concretely in several countries and through discussions of contemporary "hot topics" such as AIDS and the resource curse.
Style: 35% Lecture, 10% Film/Video, 40% Discussion, 15% Small Group Activities.
Grading: 20% mid exam, 20% final exam, 40% reports/papers, 20% class participation. For students taking 4 credits, the research paper=25%, participation 15%, midterm exam=15%, final exam=15%, and each essay 15%.
Exam Format: The exams will be multiple choice and short answer questions. The exams will focus on topics not covered in the short papers, so collectively the exams and the essays function as four midterms. The final exam is not cumulative.

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; 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 Venezuela. Readings on other countries will occasionally be assigned. The course offers senior paper credit for Political Science majors. It is NOT, however, a writing intensive course.

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 questions.

POL 3766 Political Psychology of Mass Behavior
3 credit(s); prereq 1001 or equiv or instr consent; Meets CLE req of Citizenship/Publ Ethics Theme;
Instructor: Goren, Paul Nurrulah
Description: Student may contact the instructor or department for information.

POL 3835 International Relations
3 credit(s); Meets CLE req of International Perspect Theme; meets CLE req of Social Science Core;
Instructor: Duvall, Raymond D
Description: Student may contact the instructor or department for information.

POL 3873V Global Citizenship and International Ethics
3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of International Perspect Theme; 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 4275 Contemporary Political Thought
3 credit(s); prereq 1201 recommended;
Instructor: Lucken Nancy
Description: Student may contact the instructor or department for information.

POL 4478W Contemporary Politics in Africa and the Colonial Legacy
4 credit(s); prereq 1054 or 3051 or non-pol sci grad or instr consent; Credit will not be granted if credit has been received for: POL 5478; Meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive;
Instructor: Nimtz Jr, August H
Description: Student may contact the instructor or department for information.

POL 4487 The Struggle for Democratization and Citizenship
4 credit(s); prereq non-pol sci grad; Credit will not be granted if credit has been received for: POL 4501W; Meets CLE req of Citizenship/Publ Ethics Theme;
Instructor: Nimtz Jr, August H
Description: The setting for this course is the mounting effort on the part of states and a variety of social forces to roll back the historic gains of the world-wide democratic movement--from anti-immigrant campaigns (in both fascist and non-fascist clothing) that would limit citizenship rights to efforts that undermine civil liberties in the guise of combating terrorism. This takes place in a larger context in which increasing numbers of citizens feel disempowered and alienated from the state. As democracy and popular participation are central to citizenship the course traces the origins of the democratic process with particular emphasis on how the disenfranchised fought to become included. Both implicitly and explicitly it seeks to understand how that occurred in order to see if there are lessons of the past that might have applicability for the defense and extension of democratic rights today. To understand it was the disenfranchised who empowered themselves in itself empowering. An underlying assumption of the course is that the inclusion of previously disenfranchised layers of society into the category of citizens is due to social struggles of threat of such--an assumption to be examined in the course.
Style: 75% Lecture, 25% Discussion.
Grading: 25% mid exam, 50% final exam, 25% reports/papers.
Exam Format: Essay
Schedule.

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POL 4889 Governments and Global Trade and Money
3-4 credit(s), max credits 4, 1 repeat allowed; prereq 3835 or non-pol sci grad or instr consent; Credit will not be granted if credit has been received for: POL 5889;
Instructor: Freeman, John Roy
Description: Student may contact the instructor or department for information.

POL 4900V Honors: Senior Paper
A-F only, 1 credit(s); prereq Honors, pol sr, instr consent;
Instructor: Kelliherr, Daniel R
Description: This course exists to provide credit for Political Science honors students who are completing their senior projects in fulfillment of either cum laude or magna cum laude level of honors. These students should register for one credit of 4900V in the year that they complete their senior papers. (NOTE: Students who in the summa cum laude track should not take 4900V, but 3110V for four credits.

Exam Format: Short answers and essays

Instructor: Luxon, Nancy
Description: Student may contact the instructor or department for information.

POL 5410 Topics in Comparative Politics
3 credit(s); prereq grad student;
Instructor: Kelliher, Daniel R
Description: Fights about family, sex, and children are some of the harshest in contemporary politics. Topics in this course include: (1) Battles over who can make a family: same-sex marriage, teenaged childbearing, polygamy. (2) Children: the Western ideology of childhood, the realities of third-world childhood, child soldiers, child prostitution, human trafficking, sex-selective abortion & the "missing girls" problem. (3) Sex: power in sexual relationships, sexual elements of political ideologies, sexual freedom & the state. (4) Finances and family survival: social support for families, childcare, family leave, finance, taxation, bankruptcy. (5) Electoral politics: families and electoral behavior, campaigns and manipulation of images of the family.
Style: 60% Lecture, 10% Film/Video, 30% Discussion.
Grading: 15% mid exam, 15% final exam, 60% reports/papers, 10% class participation.

POL 5478 Contemporary Politics in Africa and the Colonial Legacy
4 credit(s); prereq grad student or instr consent; Credit will not be granted if credit has been received for: POL 4478W;
Instructor: Nimtz J., August H
Description: Student may contact the instructor or department for information.

POL 5479 Latin American Politics
3-4 credit(s); prereq grad student or instr consent; Credit will not be granted if credit has been received for: POL 3479;
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 Venezuela. Readings on other countries will occasionally be assigned. The course offers senior paper credit for Political Science majors. It is NOT, however, a writing intensive course.
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 5502 Supreme Court, Civil Liberties, and Civil Rights
3 credit(s); prereq credit will not be granted if credit received for: 4502; 1001 or 1002 or equiv or non-pol sci grad student or instr consent;
Instructor: Johnson, Timothy
Description: Student may contact the instructor or department for information.

POL 5810 Topics in International Politics and Foreign Policy
3 credit(s), max credits 6; prereq =: 4810; grad student;
Instructor: Aaltola, Mika Petteri
Description: The course examines the link of Western world politics and political religion. It examines the polito-religious cultural resources of American foreign policy. How are they used in foreign policy? What are the central spectacles? What are the performers of these tense dramas? The course will review the cultural histories of important polito-religious practices to develop better insights on contemporary world politics. The book examines political imagination and, especially, the role of cultural memory. The course draws from the analysis of spectroscapes of power? e.g. the invasion of Afghanistan and Iraq.

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spectacles are perceived to be constituted by a variety of religious experiences that is specific to the Western world politics. The general theme of the course concerns the relationship between religion and world politics. Judging from the recent research on the issue, the topic is very broad and hard to contain. The state of research is still patchy and underdeveloped. Certain research areas have been highlighted at the expense of some other relevant themes. Much less attention is paid to role of religion in the Western politics. The course tries to gap this research void in the studies of world politics. The course tries to seek answers on how contemporary world politics evokes deeply held values, beliefs and myths. What are the central rites of acknowledgement by which common truths are experienced? How such communities like ‘international community? or ‘the coalition of the willing? are maintained? How morality dramas and normative plays are used to reinvigorate the notion of the West?

POL 5889 Governments and Global Trade and Money
3 credit(s); prereq 3835 or grad student or instr consent;
Credit will not be granted if credit has been received for:
POL 4889;
Instructor: Freeman, John Roy
Description: Student may contact the instructor or department for information.

POL 8060 Research Proseminar in Political Science
S-N only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq Pol sci grad student;
Instructor: Lemmon, Jeffrey D
Description: Student may contact the instructor or department for information.

POL 8060 Research Proseminar in Political Science
S-N only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq Pol sci grad student;
Instructor: Roberts, Jason Matthew
Description: Student may contact the instructor or department for information.

POL 8060 Research Proseminar in Political Science
S-N only, 2 credit(s), max credits 8, 4 repeats allowed;
prereq Pol sci grad student;
Instructor: Ansell, Benjamin William
Description: Student may contact the instructor or department for information.

POL 8070 Advanced Research and Writing in Political Science
S-N only, 2 credit(s), max credits 4; prereq ABD student in pol sci;
Instructor: Sullivan, John L
Description: Student may contact the instructor or department for information.

POL 8070 Advanced Research and Writing in Political Science
S-N only, 2 credit(s), max credits 4; prereq ABD student in pol sci;
Instructor: Duvall, Raymond D
Description: Student may contact the instructor or department for information.

POL 8105 Professional Development II
S-N only, 1 credit(s), max credits 2; prereq Pol sci student, ABD, dept consent;
Instructor: Kellhier, Daniel R
Description: Student may contact the instructor or department for information.

POL 8123 Introduction to Quantitative Political Research
A-F only, 3 credit(s); prereq Pol sci grad student or instr consent;
Instructor: Federico, Christopher Michael
Description: Student may contact the instructor or department for information.

POL 8260 Topics in Political Theory
3 credit(s), max credits 6; prereq Grad pol sci major or instr consent;
Instructor: Disch, Lisa J
Description: Student may contact the instructor or department for information.

POL 8302 Public Opinion and Political Participation
3 credit(s); prereq Grad pol sci major or instr consent;
Instructor: Goren, Paul Nurullah
Description: Student may contact the instructor or department for information.

POL 8308 Proseminar in Political Psychology II
S-N only, 1 credit(s); prereq Grad pol sci major or pol psych minor or instr consent; Credit will not be granted if credit has been received for: PSY 8212;
Instructor: Sullivan, John L
Description: Student may contact the instructor or department for information.

POL 8360 Topics in American Politics
3 credit(s), max credits 9, 3 repeats allowed; prereq Grad pol sci major or instr consent;
Instructor: Strolovitch, Dara
Description: Student may contact the instructor or department for information.

POL 8402 International Security
3 credit(s); prereq Grad pol sci major or instr consent;
Instructor: Krebs, Ronald R
Description: Student may contact the instructor or department for information.

POL 8403 International Norms and Institutions
3 credit(s); prereq Grad pol sci major or instr consent;
Instructor: Sikkink, Kathryn A
Description: Student may contact the instructor or department for information.

POL 8405 International Political Economy
A-F only, 3 credit(s); prereq Grad pol sci major or instr consent;
Instructor: Ansell, Benjamin William
Description: Student may contact the instructor or department for information.

POL 8601 Introduction to Comparative Politics
3 credit(s); prereq Grad pol sci major;
Instructor: Samuels, David Julian
Description: Student may contact the instructor or department for information.

POL 8637 Comparative Political Economy
3 credit(s); prereq Grad pol sci major or instr consent;
Instructor: Ansell, Benjamin William
Description: Student may contact the instructor or department for information.

Portuguese
PORT 1102 Beginning Portuguese
5 credit(s); prereq 1101 or instr consent;
Instructor: STAFF

This information is accurate as of 6/9/2008 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.
PORT 1104 Intermediate Portuguese
5 credit(s); prereq 1103 or instr consent; Instructor: STAFF
Description: Continuation of 1103. This intermediate level Portuguese language course focuses on the acquisition of basic skills (Speaking, Comprehension, Reading, and Writing). Cultural aspects: Brazil, Portugal, and/or Lusophone Africa.
Style: 15% Lecture, 60% Discussion, in-class exercise
Grading: 15% mid exam, 25% final exam, 20% quizzes, 10% in-class presentation, 20% laboratory evaluation, 10% other evaluation. compositions

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, Portugal, and/or 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); prerequisites 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 3603 Portuguese-Speaking Cultures and Literatures in Translation
3 credit(s); Meets CLE req of International Perspect Theme; meets CLE req of Literature Core; Instructor: Arenas, Fernando
Description: An introduction to the cultures of Portuguese-speaking Africa: Angola, Cape Verde, Guinea Bissau, Mozambique, and Sao Tome & Principe. Through an inter-disciplinary focus that includes history, literature, intellectual thought/critical theory, film, and popular music, we will study the key cultural problematics related to Lusophone Africa and its various individual countries. Some of the topics covered: colonialism and (post-) or (neo-)colonialism; Pan-Africanism and Negritude; wars of liberation and Third World Marxism; national identity formations; the politics of race, gender, and sexuality; the travails of democratization and modernization; the challenges of nation re-building and peace-making; and a possible future for (Lusophone) Africa in a globalized world. This course will be taught in English.

PORT 3800 Film Studies in Portuguese
A-F only, 3 credit(s), max credits 6, 3 repeats allowed; prereq 3003 or [dept or instr consent]; Credit will not be granted if credit has been received for: PORT 3800H; Instructor: Arenas, Fernando
Description: This course will be an introduction to the film cultures of Brazil, Portugal, and Lusophone Africa (Cape Verde, Guinea Bissau, Angola and Mozambique, more specifically). Students will acquire conceptual foundations in order to understand film. Students are expected to critically engage with the form and content of each film, at the same time as they acquire an understanding of the historical, cultural, (geo)political, and socio-economic forces that have shaped the development of film in these various countries. As we study the film culture of the Portuguese-speaking world, we will establish a productive conversation with other world cinemas such as Hollywood, American independent cinema, and various other European, Latin American, and African film currents. Brazilian cinema novo will be highlighted as a key contribution to world cinema. At the same time, the notions of cinema d’auteur and art film will be carefully illustrated throughout the semester. Other concepts related to the technology of film, its modes of production, distribution, and reception, as well as its semiotic configuration will be studied throughout the semester.
Style: 30% Lecture, 40% Film/Video, 30% Discussion.
Grading: 60% reports/papers, 40% class participation.

PORT 5520 Portuguese Literary and Cultural Studies
3 credit(s), max credits 9, 3 repeats allowed; Instructor: Arenas, Fernando
Description: Origins and development of the Portuguese modern nation (from the late fifteenth to the late twentieth centuries). Interdisciplinary (literature, cultural and literary criticism, historiography, sociology) and multi-media based course (film, art, architecture, popular music, internet). Main cultural problematics pertaining to Portugal as well as its fundamental literary texts. This course is part of a graduate sequence of core-courses focusing on Portugal, Brazil, and Lusophone Africa.

PORT 5970 Directed Readings
3 credit(s), max credits 9, 3 repeats allowed; prereq MA or PhD candidate, instr consent, dept consent, college consent; Instructor: STAFF
Description: Student may contact the instructor or department for information.

PORT 5990 Directed Research
1-4 credit(s), max credits 9, 9 repeats allowed; prereq instr consent, dept consent, college consent; Instructor: Ferreira, Ana Paula
Description: Student may contact the instructor or department for information.

PSTL 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 731 or 0732. Note that PsTL 0721 is a traditional lecture/discussion version of this course and covers the same content.

**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% written homework

**Exam Format:** Algebra problems to solve (e.g. Solve this equation); Exams are closed book but calculators are allowed.

**PSTL 732 Intermediate Algebra (Computer)**

4 credit(s); prereq 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 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, as well as PsTL 1004 Statistics (which satisfies the CLE Mathematical Thinking requirement). Note that PsTL 0731 is a traditional lecture/discussion version of this course and covers the same content.

**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**

3 credit(s); prereq Intermediate algebra or equiv or placement exam credit will not be granted if credit received for: GC 1454 or Stat 1001; Meets CLE req of Mathematical Thinking Core;

**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, discussions, demonstrations, and mini-quizzes. These models are then used to make predictions. Applications of mathematical thinking course that primarily uses mathematical models to describe the 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 statistics include social science, business, and other fields. 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:** 10% final exam, 25% reports/papers, 10% written homework, 40% additional semester exams, 15% problem solving.

**Exam Format:** Exams are a combination of short answer questions, calculations and graphing, and multiple choice questions.

**PSTL 1004 Statistics**

4 credit(s); prereq Intermediate algebra or equiv or placement exam credit will not be granted if credit received for: GC 1454 or Stat 1001; Meets CLE req of Mathematical Thinking Core;

**Instructor:** Stottlemyer, Janet D.

**Description:** This course is a mathematical thinking course 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, discussions, demonstrations, and mini-quizzes. These models are then used to make predictions. Applications of statistics include social science, business, and other fields. 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:** 25% Lecture, 20% Discussion, 45% Small Group Activities, 10% Student Presentation.

**Grading:** 20% mid exam, 30% reports/papers, 10% quizzes, 10% written homework, 10% journal, 10% reflection paper, 10% in-class presentation. Application 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); prereq 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 Core;

**Instructor:** Stottlemyer, Janet D.

**Description:** This course is a mathematical thinking course that primarily uses mathematical models to describe the 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.

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

**Grading:** 45% mid exam, 15% final exam, 30% special projects.
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 Core;
Instructor: Staats, Susan K
Description: Students will use algebra to create equations and graphs that describe real world data and situations. Students will learn to use these mathematical models to make predictions, to evaluate error and to link observed phenomena with algebraic processes. The course is both theoretical and practical. It focuses on applications of linear, polynomial, rational, exponential, logarithmic and logistic equations.

PSTL 1051 Editing for Writers
2 credit(s); prerequisite credit will not be granted if credit received for: 1407;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

PSTL 1081 Integrated Learning in the Social Sciences
PSTL 1081 Integrated Learning in the Social Sciences
A-F only, 2 credit(s), max credits 4; prerequisite concurrent registration in social science course, adviser approval;
Instructor: Kelly, Margaret Ellen Delehanty
Description: Student may contact the instructor or department for information.

PSTL 1082 Integrated Learning in the Sciences
A-F only, 2 credit(s), max credits 6, 3 repeats allowed; prerequisite concurrent registration in science course, adviser approval;
Instructor: Trites, Jill K
Description: Student may contact the instructor or department for information.

PSTL 1135 Essentials of Human Anatomy and Physiology
4 credit(s); prerequisite credit will not be granted if credit received for: GC 1163; Meets CLE req of Biological Sciences/Lab Core;
Instructor: Jensen, Murray Stowe
Description: PSTL 1135, Essentials of Human Anatomy and Physiology, is a biological science course, with laboratory, designed to introduce college freshmen to scientific thinking and career exploration in health care, kinesiology, or other areas in the life sciences. The course is organized around body systems, e.g., the respiratory system, the nervous system, etc., and uses both fitness and disease, e.g., diabetes, cancer, atherosclerosis, etc. to introduce students to essential concepts in anatomy and physiology. In the lecture setting, students will take notes while listening to lectures, work in groups to solve problems, learn to interpret graphical data, and complete short writing assignments. In the laboratory, student engage in traditional dissections, e.g., brains, hearts, etc., perform inquiry-based exercises, and participate in other hands-on activities. Cooperative learning activities, e.g., cooperative quizzes, are used in both the lecture and the lab settings of the course. All students enrolled in PSTL 1135 will be required to read at least one book, such as "When the Air Hits Your Brain," outside of regular class time. The course will make considerable use of internet-based curricular materials.
Style: 60% Lecture, 30% Laboratory, 10% Small Group Activities.
Grading: 30% final exam, 10% quizzes, 30% additional semester exams, 30% laboratory evaluation.

PSTL 1163 Physics by Inquiry
4 credit(s); prerequisite credit will not be granted if credit received for: GC 1163; Meets CLE req of Physical Science/Lab Core;
Instructor: Hsu, Leon
Description: PSTL 1163 is an introductory physics course that tries to simulate the way scientists discover and create knowledge. The course is aimed at elementary education majors and non-science majors. The entire class period is a lab and there are no lectures. Students work in small groups to perform experiments, make observations, develop theories of how things work, and test those theories by performing further experiments. Students develop an understanding of physics concepts through doing it and talking about it with their peers and with the course staff. The goal of the course is not only to learn physics concepts, but knowing HOW we know them (what is the evidence for them), being able to apply them in new situations, and being able to explain them. There is a fair amount of writing involved in the course in terms of explaining one’s answers, but not in the sense of papers. The course places an emphasis on learning by thinking and doing.
Style: 100% Laboratory.
Grading: 15% mid exam, 20% final exam, 15% reports/papers, 15% quizzes, 15% additional semester exams, 10% journal, 5% class participation, 5% other evaluation.
Exam Format: All questions require short answers or short essays explaining an answer.

PSTL 1171 Earth Systems and Environments
4 credit(s); prerequisite credit will not be granted if credit received for: GC 1171; Meets CLE req of Physical Science/Lab Core;
Instructor: Hatch, Jay Tudor
Description: This is a learner-centered introductory level course that guides you toward developing your own understanding of the preeminent principles of biology, including Ecology, Biodiversity, Evolution, Genetics, Cell Theory, and the Molecular Basis of Life. But, we strive to have you do so in the context of your own daily living, being ever mindful that all living things are connected in an intricate web of life, and that how you live your life affects the nature of that web. So, how do we begin? By asking questions and developing answers. Here’s some questions we’ll try to answer from a scientific point of view (and don’t worry, you’ll get to ask and answer your own questions as well). Who are you? Are we alone in the universe? Want to have fun? And always we will take time to write about what we understand, how we came to understand it, and what we still don’t understand. In the laboratory, you will work in cooperative pairs, focusing on the process of science; that is, how scientists go about observation, formulating questions, transforming the questions into hypotheses, testing the hypotheses, collecting data, organizing and interpreting the data, drawing conclusions, and communicating their work to the world. There is no dissection of organisms in this course.
Style: 20% Lecture, 20% Discussion, 30% Laboratory, 30% Small Group Activities.
Grading: 16% mid exam, 17% final exam, 16% special projects, 17% class participation, 33% laboratory evaluation. Lab scoring based on weekly quiz, lab reports, written homework, and one problem set.
Exam Format: Multiple choice
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 6/9/2008 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 2008

PSTL 1204 Ways of Knowing in the Social Sciences (A-F only, 4 credit(s); Meets CLE req of International Perspect Theme; meets CLE req of Social Science Core;
Instructor: Ghere, David Lynn
Description: Ways of Knowing in the Social Sciences is a course of studies that enables students to utilize the social science disciplines as a multidisciplinary lens for understanding major local, national, and international issues. We will explore the diverse ways that Economics, Political Science, History, Sociology, Anthropology, and Geography construct evidence and present knowledge by studying the local/global dimensions of immigration. The course examines major ideas, theories, and perspectives from each discipline while building an interdisciplinary understanding of the international dimensions of human migration. Students will learn multi-media research and presentation skills. Students interested in teaching or majoring in the social sciences gain useful information for choosing a major and teaching in a multidisciplinary field of studies. With a focus on experiential learning, students in this course will develop an interdisciplinary way of thinking that can be used to understand other major social issues.
Style: 25% Lecture, 40% Discussion, 10% Laboratory. 6 self designed field trips
Grading: 20% reports/papers, 40% quizzes, 10% in-class presentation, 10% class participation, 20% other evaluation. self designed field trips
Exam Format: multiple choice, 10 questions

PSTL 1211 Multicultural Perspectives in Sociology (4 credit(s); prereq credit will not be granted if credit received for: GC 1211; Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core;
Instructor: Ronnkvist, Amy Michelle
Description: This course is designed as an introduction to sociological thinking and methods of research. Areas of study include socialization, culture, stratification (on the basis of race, class, and gender), social institutions, 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 social modern thought. Because ideas emerging from anthropology, feminist and critical race theory, and cultural studies are an important part of the mixture that creates the sociological perspective, readings and discussions will be interdisciplinary in nature. 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 and consider the ways in which different aspects of social life systematically differentiate by privileging and disadvantaging our participation in society.
Style: 60% Lecture, 20% Discussion, 20% Small Group Activities. small group work
Grading: 50% mid exam, 25% final exam, 10% quizzes, 15% class participation
Exam Format: multiple choice and essay

PSTL 1211 Multicultural Perspectives in Sociology (4 credit(s); prereq credit will not be granted if credit received for: GC 1211; Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core;
Instructor: Milks, Karen L
Description: Student may contact the instructor or department for information.

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 Cultural Diversity Theme; meets CLE req of Historical Perspective Core;
Instructor: Ghere, David Lyn
Description: This course addresses the major political, economic, social and diplomatic issues in American History since 1665 from a variety of multicultural perspectives. The historical roots of our cultural diversity, the effects of various cultures on our national development, the cultural contributions of our various citizens, and our shared struggle as a nation are examined by focusing on three themes: The Rise of Modern America, Challenges to the American Dream, and Fulfilling the American Mission. The assigned textbook and readings have been selected to provide the historical knowledge and multicultural perspectives to support the examination of those historical themes. Classroom simulations are used in the course to place the student in the role of a political or diplomatic decision maker. Documents providing multicultural perspectives are examined to stimulate class discussion while issues and events are discussed and critiqued from a variety of historical perspectives. The dynamic nature of history as a discipline will also be addressed.
Style: 50% Lecture, 10% Film/Video, 20% Discussion, 20% Small Group Activities.
Grading: 25% mid exam, 25% final exam, 10% reports/papers, 5% reflection paper, 10% class participation. Two midterm exams each worth 25% each covering five chapters. Final exam worth 25% covers only the last five chapters.
Exam Format: Multiple choice worth 30 points, short essays worth 30 points, long essay worth 40 points.

PSTL 1246 Multicultural Contexts: Engaging Citizenship and Democracy (3 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core;
Instructor: Peter, Gary E
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 Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core;
Instructor: Poch, Robert Karl
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 Historical Perspective Core; meets CLE req of International Perspect Theme;
Instructor: Arendale, David R
Description: Student may contact the instructor or department for information.

PSTL 1281 Principles of Psychology (4 credit(s); prereq credit will not be granted if credit received for: Psy 1001, GC 1281; Meets CLE req of Social Science Core;
Instructor: Wambach, Cathrine A
Description: Student may contact the instructor or department for information.

PSTL 1281 Principles of Psychology (4 credit(s); prereq credit will not be granted if credit received for: Psy 1001, GC 1281; Meets CLE req of Social Science Core;
Instructor: Wambach, Cathrine A
Description: Student may contact the instructor or department for information.

PSTL 1281 Principles of Psychology (4 credit(s); prereq credit will not be granted if credit received for: Psy 1001, GC 1281; Meets CLE req of Social Science Core;
Instructor: Madayun, Naim Hossein
Description: Student may contact the instructor or department for information.
PSTL 1289 Psychology and Self: Developing Identities 3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core;  
Instructor: Frederickson,Tina  
Description: This course introduces students to a basic psychological exploration of identity. Focusing on psychology and the self, the course is designed to help students apply psychological principles to life experience and better understand themselves, their choices, and the cultural contextual forces that shape us.

PSTL 1312 Creating Identities Through Art and Performance 4 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Other Humanities Core;  
Instructor: Dorsey,Heather Jane  
Description: This course explores the performing arts?specifically theater?as forces for change. The work of authors, artists, and performers like Sean O?Casey, Arthur Miller, Diane Glancy, and Langston Hughes helps us to better understand the role of identity in the USA. The assigned plays, as well as readings and films, have been selected in order to provide a range of cultural perspectives. We will also explore cultural identities and communities through classroom performance workshops, attending live performances and museums and putting what we learn into practical action. No previous training or experience is required, but you will need to be willing to engage in basic performance exercises. You will come out of this course able to communicate more effectively and collaborate with others, essential skills for life. The Washington Street Bridge will be our final performance space, the perfect place to explore and perform questions of identity, community, and culture.

PSTL 1366 Literatures of the U.S.: Multicultural Perspectives 3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core;  
Instructor: Rojas Collins, Molly C  
Description: In this course, we will focus specifically on the literature of the American Immigrant Experience. We will read texts written by 1st or 2nd generation immigrants about their own experiences and reflect on themes related to this important American phenomenon. Students will participate in literary analysis and discussion, and respond to readings with shorter essays and exams. As an introductory course, students will also investigate the ways academics read literature.

Grading: 45% reports/papers, 15% quizzes, 25% written homework, 15% class participation.

PSTL 1366 Literatures of the U.S.: Multicultural Perspectives 3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core;  
Instructor: Fitzpatrick, Renata Marie  
Description: Student may contact the instructor or department for information.

PSTL 1366 Literatures of the U.S.: Multicultural Perspectives 3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core;  
Instructor: Hyland, Ezra St  
Description: Student may contact the instructor or department for information.

PSTL 1367W Literatures of the World: International Perspectives 4 credit(s); Meets CLE req of International Perspectve Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive;  
Instructor: Cory, Kristin Anne  
Description: Student may contact the instructor or department for information.

PSTL 1368 Literatures of the U.S.: Multicultural Perspectives 3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core;  
Instructor: Grier, Tabitha LaShaun  
Description: Student may contact the instructor or department for information.

PSTL 1461 Multicultural Perspectives in Public Speaking 3 credit(s); prereq credit will not be granted if credit received for: COMM 1101, COMM 1101H, GC 1461; Meets CLE req of Citizenship/Publ Ethics Theme;  
Instructor: Trites, Jill K  
Description: Student may contact the instructor or department for information.

PSTL 1461 Multicultural Perspectives in Public Speaking 3 credit(s); prereq credit will not be granted if credit received for: COMM 1101, COMM 1101H, GC 1461; Meets CLE req of Citizenship/Publ Ethics Theme;  
Instructor: Dorsey, Heather Jane  
Description: Student may contact the instructor or department for information.
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; Meets CLE req of Citizenship/Publ Ethics Theme;
Instructor: Kelly, Margaret Ellen Delehanty
Description: Student may contact the instructor or department for information.

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; Meets CLE req of Citizenship/Publ Ethics Theme;
Instructor: Frederickson, Tina
Description: This course is designed to develop an understanding of the fundamental principles, processes, and practices of face-to-face human communication. Core focus is on public communication; providing practical public speaking experiences and opportunities to critically analyze this rhetorical art. Emphasis is placed on frequent in-class presentations, critical and creative thinking, written critiques, readings, and group discussions. Understanding the power of speech, language, and organization of ideas to reach communicative goals is paramount.
Style: 20% Lecture, 5% Film/Video, 20% Discussion, 20% Small Group Activities, 35% Student Presentation.
Grading: 11% mid exam, 13% final exam, 18% written homework, 8% attendance, 50% in-class presentation.

PSTL 1481 Thinking Through Art
3 credit(s); Meets CLE req of Other Humanities Core;
Instructor: Hyland, Ezra St
Description: Student may contact the instructor or department for information.

PSTL 1485 Creativity: Photography
4 credit(s); prerequisite Own camera [35 mm w/adjustable controls preferred], UC: $50 lab fee;
Instructor: Milikan, 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 create a portfolio of their own images. Course includes required lab time in addition to scheduled class times at the new MN Center for Photography located in NE Minneapolis. Students must have a film-based camera, (35mm with adjustable controls preferred).
Style: 30% Lecture, 20% Discussion, 50% Laboratory.

PSTL 1511 Introduction to Business and Society
4 credit(s); Meets CLE req of Social Science Core;
Instructor: Kroll, Patrick A
Description: Introduction to Business and Society is a business/social science course allowing students to explore a broad range of business content from accounting to z-style management. It satisfies the University's qualification as a social science. Students use the course to help explore possible majors and business careers.
Style: 50% Lecture, 30% Discussion, 20% Small Group Activities.

PSTL 1513 Small Business Fundamentals With E-Business Applications
3 credit(s);
Instructor: Peterson, Rick
Description: Student may contact the instructor or department for information.

PSTL 1571 Computer Literacy and Problem Solving
4 credit(s); prerequisite credit cannot be granted if credit has already been received for: 1573, or 1574;
Instructor: Robertson, Douglas Frederick
Description: Students learn concepts and develop competencies in computer technologies most often used in social sciences and 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, mail merge, 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.
Style: 20% Discussion, 80% Web Based. 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 1903 Freshman Seminar: Citizenship and Public Ethics
3 credit(s); prerequisite freshman; Credit will not be granted if credit has been received for: PSTL 1902; Meets CLE req of Citizenship/Publ Ethics Theme;
Instructor: Jensen, Murray Stowe
Description: There are two components to this course: science and politics. The science of genetics and reproduction involves learning the basics of DNA, fertilization, embryos, developmental biology, etc., as well as new developments in the science of becoming pregnant, such as in vitro fertilization techniques, as well as new science to prevent pregnancy while still being sexually active, such as the morning after pill. The political portion of the course will revolve around bioethics; the hard work involved in making decisions surrounding genetics, DNA, sex, and reproduction. Topics will range from personal decisions, e.g., using a condom, to federal law, e.g., Row vs. Wade, and even world politics, e.g., the one child rule in China. Cultural and religious traditions will be used as a framework for many topics and special consideration will be given to the lessons learned from our country's history with eugenics. This course will include many topics related to citizenship and public ethics, and specifically, bioethics. Should a human try to reproduce as much as possible? Should one person be able to tell another person to stop reproducing? Should state or national government bodies influence family planning? Should family size be linked to welfare laws? These and many more bioethical topics will be examined within a context of science, politics, religion, and history. Consideration will be made to significant events such as the Row V. Wade abortion ruling, mandatory sterilization laws and eugenics, the development of the birth control pill, and the Tuskegee study of untreated syphilis, to recognize how history has shaped our current opinions and laws relating to human reproduction. Special attention will be made to how religious and cultural beliefs interact with the quickly advancing fields of genetics and reproduction technologies, and how these interactions influence individuals, families, communities, and even governments when making bioethical decisions.
Style: 10% Lecture, 70% Discussion, 20% Student Presentation.
Grading: 50% mid exam, 30% final exam, 20% reports/papers.

PSTL 1904 Freshman Seminar: International Perspectives
3 credit(s); prerequisite freshman; Credit will not be granted if credit has been received for: PSTL 1902; Meets CLE req of International Perspectives Theme;
Instructor: Staals, Susan K
Description: Student may contact the instructor or department for information.
PSTL 1906W Freshman Seminar: Environmental Issues
3 credit(s); prerequisite freshman credit will not be granted if credit received for: 1907, 1906, 1909; Meets CLE req of Environmental Theme; 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 1907W Freshman Seminar: Cultural Diversity
3 credit(s); prerequisite freshman; Meets CLE req of Cultural Diversity Theme; meets CLE req of Writing Intensive;
Instructor: Higbee, Jeanne Louise
Description: Student may contact the instructor or department for information.

Program for Individualized Learning
107 Armory

PIL 3251 Project Registration
S-N only, 5 credit(s), max credits 10; prerequisite PIL student, dept consent;
Instructor: Laden, Gregory Thomas
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: PSY 1001H; Meets CLE req of Social Science Core;
Instructor: Brothen, Thomas
Description: (Description forthcoming.)
Style: WebCT Internet exercises and quizzes

PSY 1001H Honors Introduction to Psychology
4 credit(s); prerequisite Honors; Credit will not be granted if credit has been received for: PSY 1001; Meets CLE req of Social Science Core;
Instructor: Brothen, Thomas
Description: (Description forthcoming.)
Style: WebCT Internet exercises and quizzes

PSY 1910W Freshman Seminar: Psychopaths and Serial Killers A-F only, 3 credit(s); prerequisite Fr; Meets CLE req of Writing Intensive;
Instructor: Patrick, Christopher John
Description: Student may contact the instructor or department for information.

PSY 2801 Introduction to Psychological Measurement and Data Analysis
3 credit(s); prerequisite High school algebra, [PSY 1001 or equiv]; intended for students who plan to major in psychology; Meets CLE req of Mathematical Thinking Core;
Instructor: Babcock, Ben G
Description: We will cover basic statistical concepts like means, variability, null hypothesis testing, testing mean differences, linear regression and more. The lecture for this class will be mostly conceptual, and the labs will teach you the tools you will need for application. We may even have a few laughs along the way! The URL is from the Fall 2007 course.
Grading: There are 3 exams total, each worth around 1/4 of your grade. The other portion of your grade comes from completing homework assignments and ungraded quizzes.
Exam Format: Fill in the blank, multiple choice, and short answer questions are on the exams.

PSY 2801H Honors Introduction to Psychological Measurement and Data Analysis
3 credit(s); prerequisite [1001 or equiv], honors; intended for students who plan to major in psychology; Meets CLE req of Mathematical Thinking Core;
Instructor: Rausch, Joe
Description: Student may contact the instructor or department for information.

PSY 3001Y Honors Introduction to Research Methods
3 credit(s); prerequisite [[1001 or 1001H] or 2010 or 2010H] or equiv], PSY major, honors student; Credit will not be granted if credit has been received for: PSY 3005V; Meets CLE req of Writing Intensive;
Instructor: Buchanan, Jacob Porter
Description: Student may contact the instructor or department for information.

PSY 3001W Introduction to Research Methods
3 credit(s); prerequisite [1001, [2010 or 2010H]] or instr consent; Credit will not be granted if credit has been received for: PSY 3005V; Meets CLE req of Writing Intensive;
Instructor: StellmacK, 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

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order to produce interpretable results, and evaluating scientific claims. PSY 3001W is a writing intensive (WI) course and satisfies a Liberal Education social science requirement. 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 3001W Introduction to Research Methods 3 credit(s); prereq [1001, [2801 or 2801H]] or instr consent ; Credit will not be granted if credit has been received for: PSY 3005V; Meets CLE req of Writing Intensive; Instructor: Kvidera,Sara L Description: Student may contact the instructor or department for information.

PSY 3011 Introduction to Learning and Behavior 3 credit(s); prereq 1001; Instructor: Brothen,Thomas Description: Basic laboratory methods, fundamental phenomena, theoretical analyses, and summary principles from the field of learning and behavior change. Survey of major 20th century theorists and their distinctive perspectives, as well as introduction to contemporary descriptive and explanatory models. General introduction to classic issues in basic philosophy of science and critical analysis common to all empirical sciences. Style: 90% Lecture, 10% Discussion. Grading: 60% mid exam, 40% final exam. Exam Format: Essay and multiple choice. Final is all multiple choice.

PSY 3031 Introduction to Sensation and Perception 3 credit(s); prereq 1001; Instructor: Olman,Cheryl Annette Description: Student may contact the instructor or department for information.

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: Thomas,Mark John Description: Student may contact the instructor or department for information.

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: Manor,Julia E Description: Student may contact the instructor or department for information.

PSY 3101 Introduction to Personality 3 credit(s); prereq 1001; Credit will not be granted if credit has been received for: PSY 5101; Instructor: Weisberg,Yanna J Description: Student may contact the instructor or department for information.

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: Iorns,Daniel Edward 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: Gonzales,Marti Hope 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: Fisher,Emily L Description: Student may contact the instructor or department for information.

PSY 3206 Introduction to Health Psychology 3 credit(s); prereq 1001; Instructor: Mann,Tao Lynn Description: This course is designed to give you a broad overview of the field of health psychology. Health psychology is a young and exciting field of study that examines the relationship between psychology and health. How do psychological factors influence your physical health? And how does your physical health influence how you feel psychologically? We will try to answer such questions as: Are certain personality types more likely to get sick, or to get certain illnesses? What does stress do to your health? What psychological and social factors cause people to behave in unhealthy ways? What helps people adjust to illness? Does having a lot of friends affect your health? What can psychologists do to help cure illness? Who is healthier, men or women? Are there ethnic variations in health? How can we help people who are in pain without getting them addicted to pain-killers? Does it matter how your doctor talks to you? Does being bereaved make you ill? Does dieting work? What does starvation do to your emotions? What influences how much food you eat? Can a sugar pill cure back pain? Style: 75% Lecture, 10% Film/Video, 10% Demonstration, 5% Guest Speakers. Students will often collect data on themselves during class. Grading: 50% mid exam, 40% final exam, 10% written homework. There are two midterms each worth 25% of the course grade. Exam Format: Exams are primarily multiple choice, but may include some short answer items.

PSY 3301 Introduction to Cultural Psychology A-F only, 3 credit(s); prereq 1001; Meets CLE req of Social Science Core; Instructor: Tran,Giac-Thao Thanh Description: Theories/research on how culture influences basic psychological processes (e.g., emotion, cognition, psychopathology) in domains that span different areas of psychology (e.g., social, clinical, developmental, industrial-organizational) and of other disciplines (e.g., anthropology, public health, sociology).

PSY 3511 Introduction to Counseling Psychology 3 credit(s); prereq 1001; Instructor: Dean,Brooke Lyn Description: Student may contact the instructor or department for information.

PSY 3511 Introduction to Counseling Psychology 3 credit(s); prereq 1001; Instructor: Anders,Samantha Lee Description: History, theories, and research related to counseling psychology. Development/application of counseling theories to diverse populations. Psychological research on counseling process. Psychological mechanisms that promote change in people's lives. Style: 85% Lecture. 15% Discussion. Grading: 25% mid exam, 25% final exam, 45% reports/papers, 5% class participation.

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: Grove,William Merrill Description: Target audience: majors and non-majors who have taken Psy 1001 (introductory psychology) or equivalent. This course provides a survey of various aspects of abnormal behavior. Emphasis will be placed on empirically well-supported approaches. Most of the course covers the various kinds of adult
and child psychopathology, focusing primarily on descriptions of these forms of psychopathology, along with data relevant to etiological theories. While assessment and treatment will be considered as they relate to specific disorders, those with primary interests in these topics should take other offerings (Psy 3617 Introduction to Clinical Psychology). However, this course (or equivalent) is a prerequisite for Psy 3617. Text: V. M. Durand & D. H. Barlow. Abnormal Psychology: An Introduction. Pacific Grove, CA: Brooks/Cole, 1997. (There is a 5000-level version of Psy 3604, adding a paper as a course requirement. See description of that course for details.) The course is lecture format, but with as much discussion as possible. Exams include two midterms and a final, all non-cumulative in coverage, all having equal weight. Students usually consider the exams in this course quite difficult, and grading standards are high. Style: 100% Lecture. Grading: 67% mid exam, 33% final exam. Exam Format: multiple choice

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: Berg,Kelly Christina
Description: This course will introduce students to how mental health professionals conceptualize various types of psychopathology. Students will learn the specific diagnostic criteria for a wide range of mental disorders described in the DSM-IV-TR as well as descriptive information including prevalence rates, ages of onset, and cultural differences. We will also discuss the history of the current diagnostic system, its pros and cons, cultural implications and possible alternatives. During this course, students will be responsible for learning basic descriptive psychopathology; thus, we will only cover the causes and treatments of psychopathology to the extent that it helps students understand the various mental disorders. If students have a particular interest in methods of treatment or therapy, please consider Psy3617: Intro to Clinical Psychology or Psy3511: Intro to Counseling Psychology. Credit will not be granted if credit has been received for Psy5604H, prereq. Psy1001. Style: 80% Lecture, 10% Film/Video, 10% Discussion. Grading: 50% mid exam, 30% final exam, 20% reports/papers.

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: Haut,Kristen M
Description: Student may contact the instructor or department for information.

PSY 3617 Introduction to Clinical Psychology
3 credit(s); prereq 3604 or 5604H;
Instructor: Vrieze,Scott Ian
Description: Student may contact the instructor or department for information.

PSY 3711 Introduction to Industrial and Organizational Psychology
3 credit(s); prereq 1001, [2801 or equiv];
Instructor: Landers,Richard Nathaniel
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: Student may contact the instructor or department for information.

PSY 3960 Undergraduate Seminar in Psychology
1-5 credit(s), max credits 45, 9 repeats allowed; prereq 1001;
Instructor: Gonzalez,Ryan Derek
Description: Student may contact the instructor or department for information.

PSY 4011 Applied Behavioral Psychology
3 credit(s); prereq 3011, instr consent ;
Instructor: Peterson,Gail Burton
Description: Modern behavioral science and its practical application. Emphasis on functional analyses of behavior deficits or excesses, and the design and implementation of practical and humane interventions to produce appropriate and meaningful behavior change. A significant part of the course involves training a live animal over several weeks of in-class operant conditioning exercises. In keeping with the pragmatic and humane philosophy of the overall approach, these exercises involve direct trainer-trainee interaction using positive reinforcement only. Students shape new responses, build complex behavior chains, train simple and conditional visual discriminations, identify controlling stimuli, and generalize discriminated operant behavior to generic stimulus categories. Toward the end, specific attention is given to certain practical problems, such as teaching children with autism. Two medium-size textbooks, one on the philosophy of behaviorism [The Psychology of B. F. Skinner, O'Donohue & Ferguson (2001)] and another on applications [Behavior Modification: Principles & Procedures, 3rd Ed., Miltenberger, 2004], together with a downloaded manual for the in-class exercises, constitute the bulk of the required reading. Lectures, Internet materials and discussions supplement the reading. Grades based on write-ups of the training exercises, two midterm exams, and a comprehensive final. Style: 40% Lecture, 10% Discussion, 50% Laboratory. Grading: 35% mid exam, 25% final exam, 35% reports/papers, 5% class participation. Exam Format: multiple choice

PSY 4012 Behavior Analysis and Autism
A-F only, 4 credit(s); prereq Individual auto transportation, instr consent ;
Instructor: Peterson,Gail Burton
Description: Students registered in Psy 4011: Applied Behavioral Psychology, or who have already completed that course,may be eligible to register for this special service-learning opportunity on modern behavioral interventions for children with autism. With the instructor's approval, course is also available to parents or other caregivers with a special interest in effective interventions for autism. Through weekly reading assignments, lectures and discussions, participants learn the principles and techniques currently employed to help young children with autism acquire functional language, appropriate social behavior, and general academic and living skills. Students also gain substantial experience working directly with autistic children in off-campus service-learning settings under the supervision of qualified professionals engaged in the application of applied behavior analysis (ABA) therapy. This field experience involves a MINIMUM of 5 hours per week (two 2 hour shifts plus one 1 hour team meeting) for 12 weeks learning to do one-on-one therapy at either a center-based or home-based ABA program site. Reliable personal transportation, e.g., your own car, is essential. Issues of professional ethics, social responsibility, and scientific and moral philosophy pertaining to the education of children with autism in our society and around the world are also addressed. Grading is based on class participation, competency evaluations at the service-learning site, and performance on the final exam. Style: 30% Lecture. Supervised internship experience at off-campus site. Grading: 50% final exam, 10% class participation, 40% other evaluation. Competencies demonstrated at internship site. Exam Format: Short answer, essay, multiple choice

PSY 4501 Psychology of Women and Gender
3 credit(s); prereq 3001W or 3001V or instr consent ;
Instructor: Frazier,Patricia Ann
Description: Course Description: This course covers current theory and research regarding the psychology of women and psychological gender differences and similarities. This includes topics that relate uniquely to women as well as gender comparisons in personality, abilities, and behavior. Class sessions will consist of lectures, small and large group
discussions, guest speakers, and videos. My goal is for you to gain greater understanding of both the content and methods of psychological research related to women and gender.

Objectives: * Present a research-based course suitable for Psychology majors yet accessible to students from other majors. * Facilitate students' learning of key terms and findings related to psychology of women * Engage students in critical thinking about psychological constructs, theoretical issues, and psychological research. * Provide students with hands-on research experience in order to develop the skills to become more knowledgeable consumers of psychological research reported in popular and scholarly articles. * Encourage students to apply course content to their own lives.

**Style:** 50% Lecture, 5% Film/Video, 20% Discussion, 20% Small Group Activities, 5% Guest Speakers. 3-4 videos per semester 2-3 lectures per week

**Grading:** 38% mid exam, 25% final exam, 19% reports/papers, 17% reflection paper. Midterm 1 19% of grade Midterm 2 19% of grade In-class assignments 17% of grade Data collection assignments 19% of grade Final exam 25% of grade

**Exam Format:** multiple choice, short answer, and short-essay

**PSY 4994V Honors Research Practicum**

4 credit(s); prereq [3005W/V or 3001W/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 in the University of Minnesota Psychology Department. You will work with experienced 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, make 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 5014 Psychology of Human Learning and Memory**

3 credit(s); prereq 3011 or 3051 or honors or grad student; Instructor: Koutstaal, Wilma

**Description:** A fundamental characteristic of memory is that it in some way repeats or copies something that occurred previously to an organism. However, there is clear variability in the extent to which what is recalled actually matches or echoes what was originally experienced. Further, although this variability is often viewed as a problem, as it may result in errors of memory, such variability, in other contexts, is linked to sought after forms of variability, in other contexts, is linked to sought after forms of variability, and on a theoretical framework that integrates cognitive, computational, and neuroscientific evidence. Ways in which this approach overcomes limitations of the cognitive psychological approach are highlighted.

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

**Grading:** 40% mid exam, 30% final exam, 30% reports/papers.

**Exam Format:** Short answer

**PSY 5018H Mathematical Models of Human Behavior**

3 credit(s); prereq Math 1271 or instr consent; Instructor: Schrater, Paul Robert

**Description:** Mathematical models of complex human behavior, including individual and group decision making, information processing, learning, perception, and overt action. Specific computational techniques drawn from decision theory, information theory, probability theory, machine learning, and elements of data analysis.

**PSY 5065 Functional Imaging: Hands-on Training**

3 credit(s); prereq ([2201 or 4801 or equiv], [3061 or NSCI 3101]) or instr consent; Instructor: Olman, Cheryl Annette

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

**PSY 5138 Psychology of Aging**

3 credit(s); prereq 3005W/V or equiv;

**Instructor:** Gershenson, Celia Wolk

**Description:** The major focus of this course is to identify and describe those factors that contribute to the normal aging process. In brief, we will attempt to differentiate between myths and facts through the scientific study of adult development. We will concentrate on age-related changes in later adulthood.

**Grading:** 60% Lecture, 2% Film/Video, 35% Discussion, 1% Small group assignments 19% of grade Final exam 25% of grade

**Exam Format:** Multiple choice, short answers, short essays.

**PSY 5202 Attitudes and Social Behavior**

3 credit(s); prereq 3201 or instr consent;

**Instructor:** Borgida, Eugene

**Description:** No one area of theory and research is more identified with the field of social psychology than the study of attitudes and persuasion processes. This course therefore has been designed to review and examine critically both traditional and current theory and research on the psychology of attitudes and persuasion in social psychology and allied fields within psychology and in other social sciences. The first part of the course will cover the historical background of the field, attitude theory, and explicit and implicit measurement, the cognitive psychology of attitudes and persuasion processes. The second part of the course will cover various social psychological theories of persuasion and their diverse applications. Class time will involve lectures by the instructor and guest lecturers, discussion of the text readings, and an occasional video or in-class demonstration.

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

**Grading:** 25% mid exam, 25% final exam, 50% reports/papers.

**Exam Format:** Multiple choice, short ID questions, essay on exam #2

**PSY 5960 Topics in Psychology**

This information is accurate as of 6/9/2008 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.
3 credit(s), max credits 8; prereq 1001, [jr or sr or grad student];
Instructor: Viemeister, Neal Frank
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 repeats allowed; prereq 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 repeats allowed; prereq 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 repeats allowed; prereq 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 repeats allowed; prereq 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 repeats allowed; prereq 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 repeats allowed; prereq 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 repeats allowed; prereq 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 repeats allowed; prereq 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 repeats 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 repeats allowed; prereq instr consent, dept consent;
Instructor: MacDonald, 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.
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 repeats 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 repeats 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 repeats 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 repeats 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 repeats allowed; prereq instr consent, dept consent;
Instructor: Schrater, Paul Robert
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 repeats 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 repeats allowed; prereq instr consent, dept consent;
Instructor: Patrick, Christopher John
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 repeats allowed; prereq instr consent, dept consent;
Instructor: Gewirtz, Jonathan C
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 repeats 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 meeting and reading group.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 repeats allowed; prereq instr consent, dept consent;
Instructor: Rausch, Joe
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 repeats allowed; prereq instr consent, dept consent;
Instructor: Federico, Christopher Michael
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 repeats allowed; prereq instr consent, dept consent;
Instructor: Koutstaal, Wilma
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 repeats allowed; prereq instr consent, dept consent;
Instructor: Cuthbert, Bruce Newell
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 repeats allowed; prereq instr consent, dept consent;
Instructor: Oxenham, Andrew John
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 repeats allowed; prereq instr consent, dept consent;
Instructor: Jiang, Yuhong
Description: This is a research laboratory class with a focus on attention and memory research. Students are expected to work 8 hours in Prof. Jiang’s laboratory in chunks of 2 half days or 1 whole day. During this time students will engage in active laboratory research, including experimental design, data collection and analysis, and stimulus creation. Because of the significant amount of supervision involved, this class has limited enrollment with the permission of the instructor. It is expected that no more than 5 students will be permitted to enroll in this class in Fall’08 and Spring’09 combined. The class is shaped around individual students, with each person learning at his or her own pace. Those who do end up enrolling in the course have in the past learned a lot from it. Grading will be given on the basis of attendance, laboratory performance, and a 5-page final paper.
Style: 10% Discussion, 80% Laboratory, 10% Small Group Activities.
Grading: 15% reports/papers, 70% attendance, 15% laboratory evaluation.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 repeats allowed; prereq instr consent, dept consent;
Instructor: Mann, Traci Lynn
Description: Student may contact the instructor or department for information.

PSY 5993 Research Laboratory in Psychology
3 credit(s), max credits 18, 6 repeats allowed; prereq instr consent, dept consent;
Instructor: Engel, Stephen A
Description: Engel lab research/lab meeting

PSY 8036 Topics in Computational Vision
3 credit(s), max credits 12, 4 repeats allowed; prereq 5031 or 5036 or equiv or instr consent;
Instructor: Kersten, Daniel John
Description: Student may contact the instructor or department for information.

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PSY 8202 Close Relationships  
A-F only, 3 credit(s); prerequisite 5204 or instructor consent;  
Instructor: Simpson, Jeffrey A  
Description: Student may contact the instructor or department for information.

PSY 8208 Social Psychology: The Self  
A-F only, 3 credit(s); prerequisite Psych background especially in personality and soc psych;  
Instructor: Snyder, Mark  
Description: Student may contact the instructor or department for information.

PSY 8212 Proseminar in Political Psychology II  
S-N only, 1 credit(s); prerequisite Political Psychology grad minor; Credit will not be granted if credit has been received for POL 8308;  
Instructor: Sullivan, John L  
Description: Student may contact the instructor or department for information.

PSY 8502 Assessment in Counseling Psychology  
3 credit(s); prerequisite Counseling psych grad student or instructor consent;  
Instructor: Pendergrass, Laura A  
Description: Student may contact the instructor or department for information.

PSY 8511 Counseling Psychology Beginning Practicum: General  
S-N only, 1-6 credit(s), max credits 18, 18 repeats allowed; prerequisite [8501, 8502, 8503] or equiv, Counseling psych grad student, or instructor consent;  
Instructor: Hansen, Jo-Ida C  
Description: Student may contact the instructor or department for information.

PSY 8515 University Counseling Practicum II  
S-N only, 4-6 credit(s), max credits 6, 1 repeat allowed; prerequisite Counseling psych grad student, 8501, 8502, 8503 or equiv, 8514, instructor consent; Credit will not be granted if credit has been received for EPSY 8514;  
Instructor: Beckham-Chasnoff, Sara  
Description: Student may contact the instructor or department for information.

PSY 8545 Counseling Psychology Process and Outcome Research  
3 credit(s); prerequisite [8501, 8502, 8503] or equiv, Counseling psych grad student, instructor consent;  
Instructor: Frazier, Patricia Ann  
Description: Student may contact the instructor or department for information.

PSY 8561 Counseling Psychology Advanced Practicum II: General  
S-N only, 1-6 credit(s), max credits 6, 1 repeat allowed; prerequisite Counseling psych grad student, 8501-8502-8503 or equiv, 8510-8511 or 8514-8515 or equiv, or instructor consent;  
Instructor: Frazier, Patricia Ann  
Description: Student may contact the instructor or department for information.

PSY 8566 Counseling Psychology Advanced Practicum II: Vocational Assessment Clinic  
S-N only, 1-6 credit(s), max credits 6, 1 repeat allowed; prerequisite 8501, 8502, [8503 or equiv], 8514, [8515 or equiv], Counseling psych grad student, or instructor consent;  
Instructor: Conlon, Amy Lynne  
Description: Student may contact the instructor or department for information.

PSY 8571 Counseling Psychology Internship II  
S-N only, 1-12 credit(s), max credits 36, 36 repeats allowed; prerequisite Counseling psych PhD candidate, instructor consent;  
Instructor: Hansen, Jo-Ida C  
Description: Student may contact the instructor or department for information.

PSY 8612 Assessment II  
A-F only, 5 credit(s); prerequisite 8611, clinical psych grad student;  
Instructor: Grove, William Merrill  
Description: Student may contact the instructor or department for information.

PSY 8620 Clinical Psychology Practicum  
S-N only, 1-6 credit(s), max credits 36, 8 repeats allowed; prerequisite instructor consent;  
Instructor: Cuthbert, Bruce Newell  
Description: Student may contact the instructor or department for information.

PSY 8815 Analysis of Psychological Data  
4 credit(s); prerequisite Undergrad course in statistics, grad student in [psychology or child psychology], instructor consent;  
Instructor: Federico, Christopher Michael  
Description: Student may contact the instructor or department for information.

PSY 8882 Seminar: Quantitative and Psychometric Methods  
3 credit(s), max credits 15, 5 repeats allowed; prerequisite 5862, 5865, instructor consent;  
Instructor: Waller, Niels Gordon  
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 repeats allowed; prerequisite 5135, 5137 or instructor consent;  
Instructor: Mc Gue, Matt  
Description: Student may contact the instructor or department for information.

PSY 8937 Seminar in Human Behavioral Genetics  
3 credit(s), max credits 6, 3 repeats allowed; prerequisite 5137 or instructor 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 repeats allowed; prerequisite Psychology grad student or instructor consent;  
Instructor: Waller, Niels Gordon  
Description: Student may contact the instructor or department for information.

Public Affairs  
225 HHHCtr

PA 1005 Great Debates of Our Time: U.S. Policy and Politics  
A-F only, 3 credit(s);  
Instructor: Jacobs, Lawrence Rubin  
Description: Student may contact the instructor or department for information.

PA 1401 Public Affairs: Community Organizing Skills for Public Action

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PA 5022 Economics For Policy Analysis and Planning II
A-F only, 1.5-3 credit(s), max credits 4.5, 3 repeats allowed; prereq [[5021 or equiv], public policy major] or instr consent ;
Instructor: Hoenack,Stephen A
Description: Application of economic reasoning to various public policy issues. Cost-benefit analysis, nonmarket valuation, and tax analysis.

PA 5022 Economics For Policy Analysis and Planning II
A-F only, 1.5-3 credit(s), max credits 4.5, 3 repeats allowed; prereq [[5021 or equiv], public policy major] or instr consent ;
Instructor: Brandl,John E
Description: Application of economic reasoning to various public policy issues. Cost-benefit analysis, nonmarket valuation, and tax analysis.

PA 5020 Introduction to Financial Analysis and Management
A-F only, 1.5 credit(s); prereq Public policy major or public affairs major or grad nonprofit mgmt cert or instr consent ;
Instructor: Kudrle,Robert T

PA 5012 The Politics of Public Affairs
A-F only, 3 credit(s); prereq Major in public policy or [sci, tech, and environ policy] or instr consent ;
Instructor: Soss,Joe
Description: Stages of policy making from agenda setting to implementation. Role/behavior of political institutions (courts, legislatures, executives, bureaucracies) and citizens, social movements, and interest groups. Concepts of political philosophy. Theories of the state. Team taught, interdisciplinary course. Small discussion sections.
PA 5037 Regional Demographic Analysis
A-F only, 1.5 credit(s); prereq Major in public policy; or science, tech, and env. policy; or urban and regional planning; or instr consent;
Instructor: Assaad,Ragui A
Description: Student may contact the instructor or department for information.

PA 5101 Management and Governance of Nonprofit Organizations
3 credit(s); prereq 5011 or 5941 or grad nonprofit mgmt cert or instr consent ;
Instructor: Wirth-Davis,Michael
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 5103 Leadership and Change in an Innovation Society
3 credit(s); prereq 5011 or 5941 or grad nonprofit mgmt cert or instr consent ;
Instructor: Crosby,Barbara C
Description: Change is often built into definitions of leadership, and certainly lots of scholars and practitioners have written about how leaders can foster change in their organizations or communities. As the United States and other countries move more fully into the "innovation economy," understanding the links between leadership and change take on increased urgency. Leaders will need conceptual tools and practical skills to promote innovative organizations that thrive in and contribute to an innovative society. Accordingly, this seminar will examine models of change and models of leadership and investigate how leaders can promote personal, organizational and societal change. Case studies and action research will be emphasized. An important class product will be a framework for leadership and change in an innovation society. At the end of each class session, two or three learners will be responsible for summarizing and synthesizing the evening's conversation in order to add to the framework. Individual Learner Outcomes: 1. Able to define and analyze leadership from several perspectives 2. Able to identify and explain personal-level models of change 3. Able to identify and explain organizational-level models of change 4. Able to apply models of change to cases 6. Able to write a case study 7. Able to explain role of leadership and change in an innovation society 8. Able to practice action research 9. Able to apply systems thinking to a case 10. Better equipped to build learning communitiesCollective Learner Outcomes: 1. Build framework for leadership and change in an innovation society 2. Build learning community 3. Plan an innovation project Written Assignments: 1. Reflections? Each learner is responsible for posting a written reflection on assigned readings five times during the semester on the course website. 2. Comments? Each learner is expected to post one thoughtful query (conversation starter) and four responses to other learners? queries five times during the semester. 3.Working Paper ? 15-page case study or scholarly paper documenting action research related to the course. Also acceptable is a shorter teaching case and supporting notes and references.
Grading: 35% reports/papers, 25% reflection paper, 30% class participation, 10% other evaluation.

PA 5111 Financial Management in Public and Nonprofit Organizations
3 credit(s); prereq 5003 or instr consent ; 5011 or 5941 recommended;
Instructor: Kieklowski,P. Jay
Description: This course focuses on management of financial resources for public and nonprofit organizations. Emphasis is placed on operating and capital budgeting, short-term and long-term debt management, retirement financing, and endowment investing. Conceptual frameworks and analytical techniques will be emphasized and applied to analyze real-world financial problems. Micromanagement of financial resources is also examined in the broader contexts of the performance of the national or regional economy. Lecture, discussion, problem solving, case analysis.
Style: 50% Lecture, 20% Discussion, 20% Demonstration, 5% Field Trips, 5% Guest Speakers
Grading: 20% mid exam, 35% final exam, 30% written homework, 15% class participation.

PA 5112 Public Budgeting
3 credit(s); prereq Grad student or instr consent ;
Instructor: Penny,Timothy J
Description: Course will focus on budget principles and processes at the state and federal levels. Topics will include budget development at the departmental level, the roles of the chief executive, the legislature and other key players.
Style: 40% Lecture, 30% Discussion. Guests, videos, etc.
Grading: 45% mid exam, 45% reports/papers, 10% class participation.
Exam Format: Essay

PA 5113 State and Local Public Finance
3 credit(s); prereq Grad or instr consent ;
Instructor: Zhao PhD,Zhirong
Description: Theory/practice of financing. Providing public services at state/local level of government. Emphasizes integrating theory/practice, applying materials to specific policy areas, and documenting wide range of institutional arrangements across/within the 50 states.

PA 5132 Mediation Training
3 credit(s); prereq Grad or instr consent ;
Instructor: Chairmers,Carolyn
Description: This class uses experiential learning to develop mediation skills that meet professional standards of practice as a mediator. Simulations will be drawn from many fields. Conflict theory, mediation ethics, and applicable Minnesota regulations and laws are also covered. Upon successful completion of this course, students will have satisfied the requirements set by the Minnesota Supreme Court for inclusion on the Minnesota Supreme Court's roster of neutrals for civil matters. Attendance is essential for this class in order to meet the class hour requirements for inclusion on the Minnesota qualified neutral roster.

PA 5190 Topics in Public and Nonprofit Leadership and Management: Integrative Leadership
1-3 credit(s), max credits 9, 3 repeats allowed; prereq 5011 or 5941 or grad nonprofit mgmt cert or instr consent ;
Instructor: Vaaler,Paul Martin
Description:

PA 5190 Topics in Public and Nonprofit Leadership and Management: Government, Ethics, and the Public Will
1-3 credit(s), max credits 9, 3 repeats allowed; prereq 5011 or 5941 or grad nonprofit mgmt cert or instr consent ;
Instructor: Stone,Paul Clois
Description: Student may contact the instructor or department for information.

PA 5202W American Cities II: Land Use, Transportation, and the Urban Economy
4 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: GEOG 5372W;
Instructor: Goetz,Edward Glenn

PA 5251 Strategic Planning and Management
A-F only, 3 credit(s); prereq Grad student or instr consent ;
Instructor: Bryson,John M
Description: Theory/practice of strategic planning/management for governments, public agencies, and non-profit organizations. How to promote strategic thinking/acting by policy-making bodies
and management teams. Determining what an organization should do, how it should do it, and why. Lectures, case discussions. The course is aimed primarily at graduate students, but may be suitable for advanced undergraduates. **Style:** 50% Lecture, 50% Discussion. **Grading:** 90% reports/papers, 10% class participation.

**PA 5261 Housing Policy**  
A-F only, 3 credit(s); prereq Grad or instr consent; Credit will not be granted if credit has been received for: DHA 5463.  
**Instructor:** Crump, Jeffrey R  
**Description:** Student may contact the instructor or department for information.

**PA 5290 Topics in Planning: Current Planning Practice Short Course**  
1 credit(s), max credits 9, 3 repeats allowed; prereq Grad student or instr consent;  
**Instructor:** Martin, Judith A  
**Description:** Selected topics.

**PA 5290 Topics in Planning: Planning Decision Support Systems**  
3 credit(s), max credits 9, 3 repeats allowed; prereq Grad student or instr consent;  
**Instructor:** Bolan, Richard Stuart  
**Description:** New technological development in computing and telecommunications has made it possible to significantly enhance public participation in the urban and regional planning process. The key advances have been the development of GIS software, improvements in simulation modeling, 3D visualization/animation software and the Internet. In both public meetings and sitting at their home computer, citizens can explore with urban planners the spatial, fiscal, design and environmental implications of a variety of scenarios and in democratic fashion work out visions, goals, objectives and action plans for their region, city or neighborhood. The goal of this course is to provide those enrolled with the ability to understand and apply the linking of science and citizen participation in planning with the use of computational model simulation software and to understand the varying contexts of citizen participation made possible by this software in community meetings, visioning events, community field surveys, and Internet interactions. We will also investigate rudimentary skill in designing software for participatory decision-making.

**PA 5290 Topics in Planning: Immigrants and Cities**  
3 credit(s), max credits 9, 3 repeats allowed; prereq Grad student or instr consent;  
**Instructor:** Allen, Ryan Patrick  
**Description:** Student may contact the instructor or department for information.

**PA 5301 Population Methods and Issues for the United States and Third World**  
3 credit(s); prereq Grad student or instr consent;  
**Instructor:** Levison, Deborah  
**Description:** This course surveys population trends and issues and teaches basic demographic methods. Topics include fertility, mortality, and the demographic transition; population growth and the environment; infant mortality; sexuality and the control of fertility; US trends in family structure; and aging. The course is aimed at Master's and Ph.D. students but serious upper-level undergraduates are welcome. The course will be "web enhanced" but the home page will be available only to registered students. **Style:** 40% Lecture, 60% Discussion. **Grading:** 35% reports/papers, 5% special projects, 20% quizzes, 10% in-class presentation, 5% class participation, 10% problem solving, 15% other evaluation. Weekly 1 page reactions to readings. **Exam Format:** problem solving.

**PA 5401 Poverty, Inequality, and Public Policy**  
3 credit(s); prereq Grad or instr consent;  
**Instructor:** Hanretty, 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 5405 Implementation of Social Policy**  
A-F only, 3 credit(s);  
**Instructor:** Sandfort, Jodi R  
**Description:** Student may contact the instructor or department for information.

**PA 5412 Aging and Disability Policy**  
3 credit(s); prereq Grad or instr consent;  
**Instructor:** Eustis, Nancy N  
**Description:** Policy debates concerning populations that are aging or disabled. Students learn/practice analyses in context of important health, social, and economic policy debates. Readings on current theory/evidence.

**PA 5421 Racial Inequality and Public Policy**  
3 credit(s); prereq Grad or instr consent;  
**Instructor:** Myers Jr, Samuel L  
**Description:** Student may contact the instructor or department for information.

**PA 5442 Policy Design for Education and Human Development**  
3 credit(s); prereq Grad or instr consent;  
**Instructor:** Hoenack, Stephen A  
**Description:** Student may contact the instructor or department for information.

**PA 5452 Immigration and Public Policy**  
3 credit(s); prereq Grad student or instr consent;  
**Instructor:** Fennelly, Katherine  
**Description:** Student may contact the instructor or department for information.

**PA 5490 Topics in Social Policy: Search for Children and Youth Policy in the U.S.**  
3 credit(s), max credits 9, 3 repeats allowed; prereq Grad student or instr consent;  
**Instructor:** Schneider, Byron J  
**Description:** Selected topics.

**PA 5501 Economic Development**  
4 credit(s); prereq Grad student or instr consent;  
**Instructor:** Friedemann-Sanchez, Greta  
**Description:** Economic development theories, strategies throughout world. Competing theoretical paradigms. Policy debates. Poverty/inequality, rural development, trade policy, human capital, the environment.

**PA 5521 Development Planning and Policy Analysis**  
4 credit(s); prereq [5031 or equiv], [5501 or equiv], grad student or instr consent;  
**Instructor:** Assaad, Ragui A  
**Description:** Student may contact the instructor or department for information.

**PA 5522 Economic Development Policies in Latin America**  
3 credit(s); prereq Grad student or instr consent;  
**Instructor:** Friedemann-Sanchez, Greta  
**Description:** Student may contact the instructor or department for information.

**PA 5590 Topics in Economic and Community Development: Arts, Cities, and Economic Development**  
1-3 credit(s), max credits 9, 3 repeats allowed; prereq Grad student or instr consent;  
**Instructor:** Markusen, Ann R  
**Description:** Student may contact the instructor or department for information.

**PA 5621 Board Service in Women and Public Policy**
PA 5711 Science and Technology Policy
3 credit(s); prereq Grad student or instr consent;
Instructor: Kuzma,Jennifer
Description: Effects of science/technology on relations among nations in such matters as autonomy, national security, economic strength, environment, cultural identity, and international cooperation. Negotiating international agreements with S&T implications.

PA 5801 Global Public Policy
3 credit(s); prereq Grad student or instr consent;
Instructor: Kudrik,Robert T
Description: U.S. general diplomacy, security policy, foreign economic policy and international technology policy. Emphasizes analysis of security, trade, investment, monetary policy, tax policy, immigration policy, technology sharing and environmental cooperation.
Style: 70% Lecture, 30% Discussion.
Grading: 25% mid exam, 35% final exam, 30% reports/papers, 10% class participation.
Exam Format: Essay

PA 5890 Topics in Foreign Policy and International Affairs: Globalization and the World Food Economy
3 credit(s), max credits 9, 3 repeats allowed; prereq Grad student or instr consent;
Instructor: Johnson,Robbin S
Description: The course examines the effects of markets, governmental policies and the process of globalization on world food, feed and fuel from biomass production. The course begins with a look at why agricultural issues are important both in developed countries and in poorer countries struggling to escape their poverty and hunger. It reviews the kinds of policy choices that are made with respect to agricultural production, international trade and, more recently, biofuels development. It looks at how these issues and the policy choices made with respect to each have evolved. It compares these choices with their effects. And it asks whether alternative policy choices would be better, in what ways and for whom. (See syllabus on Course Guide for more information.)

PA 5920 Skills Workshop: Role of Citizen: Organizing for a Public Life
1 credit(s), max credits 6, 12 repeats allowed; prereq Grad student or instr consent;
Instructor: Donovan,Dennis Michael
Description: Student may contact the instructor or department for information.

PA 5920 Skills Workshop: Foundations of Ethical Practice in Public Affairs
0.5 credit(s), max credits 6, 12 repeats allowed; prereq Grad student or instr consent;
Instructor: DeCramer,Gary M
Description: Student may contact the instructor or department for information.

PA 5920 Skills Workshop: Project Planning Workshop
1 credit(s), max credits 6, 12 repeats allowed; prereq Grad student or instr consent;
Instructor: DeCramer,Gary M
Description: Student may contact the instructor or department for information.

PA 5920 Skills Workshop: Stakeholder Anal, SWOT Anal, & Causal Mapping
0.5 credit(s), max credits 6, 12 repeats allowed; prereq Grad student or instr consent;
Instructor: Bryson,John M
Description: Topics on public policy or planning skills. Topics specified in Class Schedule.

PA 5941 Leadership for the Common Good
4 credit(s); prereq Major in public affairs or instr consent;
Instructor: Shetty,Sudha
Description: Personal, team, organizational, visionary, political, and ethical aspects of leadership. Emphasizes building/experiencing a learning community.

PA 8001 Transforming Public Policy
A-F only, 4 credit(s); prereq 5941 or instr consent;
Instructor: Bryson,John M
Description: Development of interdisciplinary understanding of one or more policy areas through explorations of theory, readings, cases, and model-building exercises. Articulating policy/system improvements and leadership implications for formulating/implementing them.

PA 8081 Capstone Workshop: Education Issues
A-F only, 3 credit(s); prereq [Grad major in [public policy or [urban and regional planning] or [science, technology, and environment policy]], completion of core courses] or instr consent;
Instructor: Nathan,Joe
Description: An Education Capstone beginning in January, 2008 will deal with two major issues. Humphrey Institute students participating in this capstone will have the opportunity to select among these two projects. For more information, please contact Joe Nathan, jnathan@umn.edu 1. The impact of a college scholarship program for low income students, in cooperation with the Optimist Club in St. Paul, and 2. Policies and procedure related to educating English language learners, and awarding of course credit for students learning English, in cooperation with a number of high school students and Children/Family Services College Scholarship Project:
Preliminary discussions with the Optimist Club have produced these tentative questions for examination via surveys of students who received college scholarships. (These questions will be refined by HHH students) 1)Do you remember receiving a scholarship from the Optimist Club of St Paul's "Youth Appreciation" program? If so can you tell us about what this meant to you? 2) How has your pursuit of education helped you?
and your family? If so how? 3) If you had not received scholarship awards from groups like the Optimist Club would you have been able to pursue your education? Can you talk about how these awards made a difference? 4) What are you most proud of when you think about your education achievements and where do you hope your education takes you? English Language learning project: Do several area school districts have written plans for the education of English language learners? What are the implications of their plans (or lack of) for students and schools (i.e. segregation, meeting graduation requirements, school success, and disparities in success when compared to other students)? Are their plans (or lack of) legal? Have other options for educating English language learners been proven successful by other districts/schools? New immigrant students involved in our School Change Action Committee want to receive credit for proficiency in their first language, which may include taking classes or testing for credit. Have any schools developed successful models for this? What are the benefits (or pitfalls if any) to the students when such models are incorporated into their education?

PA 8081 Capstone Workshop
A-F only, 3 credit(s); prereq [Grad major in [public policy or [urban and regional planning] or [science, technology, and environment policy]], completion of core courses] or instr consent ;
Instructor: Carroll, Anne
Description: The student team will support the public involvement work for the Minnehaha-Hawthor Corridor Visioning project; the client is the Hennepin County Department of Housing, Community Works, and Transit.

PA 8081 Capstone Workshop: Managing Collaborations
A-F only, 3 credit(s); prereq [Grad major in [public policy or [urban and regional planning] or [science, technology, and environment policy]], completion of core courses] or instr consent ;
Instructor: Stone, Melissa M
Description: Student may contact the instructor or department for information.

PA 8081 Capstone Workshop: Economic and Community Development
A-F only, 3 credit(s); prereq [Grad major in [public policy or [urban and regional planning] or [science, technology, and environment policy]], completion of core courses] or instr consent ;
Instructor: Nelson, Kris S
Description: Kris Nelson and Lee Munnich will be offering an economic and community development capstone workshop during the 2008 Spring Semester.? In the past Humphrey students have expressed interest in a capstone workshop focused on industry clusters.? For the upcoming capstone they will use Michael Porter's Harvard course on "Microeconomics of Competitiveness: Firms, Clusters and Economic Development"? with a team project focused on an analysis of a state economy and industry cluster within that state.? The clients for these cluster projects will be state economic development agencies.? Delaware, Hawaii, North Dakota, Washington, and Wyoming have signed up as clients.

PA 8081 Capstone Workshop: Nonprofit-Government Relationships
A-F only, 3 credit(s); prereq [Grad major in [public policy or [urban and regional planning] or [science, technology, and environment policy]], completion of core courses] or instr consent ;
Instructor: Sandfort, Jodi R.
Description: This course is a workshop practicum, designed as a capstone experience for students completing their Master's degrees in Public Policy (MPP) and Public Affairs (MPA). As such, it will push you to apply the analytical and practical skills you have developed in your academic training and showcase your performance in grappling with real world problems. The course is designed to help you learn reflective practice, which takes foundational knowledge and applies it to fluid practice situations after deliberation. In the course, we will draw upon substantive readings to ground our analysis of the nuanced relationships between government agencies and the nonprofit organizations that often implement government programs. For 2008, students will work on one of three projects. Classroom seminars will focus on relevant readings, workshops, experiences and supporting field-based research: 1) In 2003, Ramsey Cty Workforce Solutions identified significant disparities in employment/sanction/exit rates for African American participants involved in Minnesota Family Investment Program (MFIP). Research will explore why/how/welfare system creates disparities, document formation of partnership, recommend feasible eval methodologies. 2) In 2005, MN Early Learning Fdn (MELF) was created through a partnership of leaders from fdn, corp & civic sectors to address growing concerns about lack of school readiness among many children entering kindergarten. Consulting team will undertake such research about Minnesota's system of funding early education and care. Starting from conditions that support parents & nurture children's dev, research will make recommendations of how existing system can be redesigned to maximize positive impacts for families. 3) Affirmative Options is coalition of 50+ orgs who work on pol advocacy focused on creating opps for women, men & children to move out of poverty. Consulting team will focus on frontlines of welfare system & document/desent to which workers are devoting time to monitoring behavior of low-income families. They will also focus on interviews with MN leaders about history of state?ws low poverty rates & innovative public policies. Research to form basis of report to MN Legislative Commission to End Poverty Commission, our Coalition & broader public.

PA 8081 Capstone Workshop: Climate Change and Technology
A-F only, 3 credit(s); prereq [Grad major in [public policy or [urban and regional planning] or [science, technology, and environment policy]], completion of core courses] or instr consent ;
Instructor: Wilson, Elizabeth Joan
Description: Project external client on issue agreed upon by student, client, and instructor. Students apply interdisciplinary methods, approaches, and perspectives studied in core courses to the issue. Written report includes analysis of policy and recommendations. Oral presentation of major findings. Concentration/topic vary term-to-term.

PA 8081 Capstone Workshop: Engaging the Public in Policy and Planning
A-F only, 3 credit(s); prereq [Grad major in [public policy or [urban and regional planning] or [science, technology, and environment policy]], completion of core courses] or instr consent ;
Instructor: Spletback, Carissa Schively
Description: Student may contact the instructor or department for information.

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University of Minnesota - Course Guide for Twin Cities Campus

Fall 2008

PA 8082 Working Group
A-F only, 3 credit(s); prereq [Grad major in [public policy or [urban and regional planning] or [science, technology, and environment policy]], completion of core courses] or instr consent;
Instructor: Hoenack, Stephen A
Description: Student may contact the instructor or department for information.

PA 8082 Working Group
A-F only, 3 credit(s); prereq [Grad major in [public policy or [urban and regional planning] or [science, technology, and environment policy]], completion of core courses] or instr consent;
Instructor: Kudrle, Robert T
Description: This working group (as others) aims to help 2nd year (and beyond) MPP students complete their individual professional papers by the end of Spring semester. All members are expected to make some progress on their papers between meetings. Each meeting will include: 1) a brief report on your progress 2) participation in the discussion of others? work 3) delivery of promised specific reactions to assigned colleagues? work The group will begin by asking for volunteers to comment in writing on the work plans or the work product of one other person. Following our second meeting, most of your effort outside of class will be devoted to: 1) making progress on your own paper and 2) providing useful comments on draft sections of various lengths of someone else?s paper. Both the interim product and the comments on it must be provided to the instructor prior to the class meeting.

PA 8082 Working Group
A-F only, 3 credit(s); prereq [Grad major in [public policy or [urban and regional planning] or [science, technology, and environment policy]], completion of core courses] or instr consent;
Instructor: Levison, Deborah
Description:

PA 8082 Working Group
A-F only, 3 credit(s); prereq [Grad major in [public policy or [urban and regional planning] or [science, technology, and environment policy]], completion of core courses] or instr consent;
Instructor: Kuzma, Jennifer
Description: Facilitates completion of research paper on current issue in public policy and management. Students apply interdisciplinary methods, approaches, and perspectives studied in core courses. Written report includes analysis of issue, policy recommendations. Concentration/topic vary term-to-term.

PA 8082 Working Group
A-F only, 3 credit(s); prereq [Grad major in [public policy or [urban and regional planning] or [science, technology, and environment policy]], completion of core courses] or instr consent;
Instructor: Cao, Jason
Description: Description Pick up a newspaper or watch the news and you?re likely to find a story about transportation problems in the U.S. metropolitan areas, most notably sprawl and congestion, and the multitude of problems that come with them ? economic inefficiencies, global warming, air pollutants, oil dependency, social inequities, safety concerns, etc. Although most people agree on the problems, few agree on the solutions. As a result, policy makers and planners have proposed and implemented various land use and transportation policies including urban growth boundary, development fees, smart growth development, investments in rail systems, expansion of the freeway system, value pricing strategies, and so on. These policies would impact both transportation and land use because the latter two are inextricably linked. The construction of a new transportation facility, such as a freeway or a light rail line, is likely to influence the nature and location of new development in the corridor. The nature and location of development is likely to affect patterns of travel for residents of the area. An understanding of land use-transportation interactions is critical to the solution of transportation and its related problems confronting large metropolitan areas. This course will cover key theories and practices, research methodologies and findings, traditional and emerging policy approaches, and techniques for forecasting. My goal for the course is to introduce students to the essential concepts, influential thinkers, and important debates associated with the land use-transportation connection as a foundation for both academic and professional work in the field of urban and transportation planning. By the end of the course, students should understand the theories behind land use and transportation interactions; be familiar with the practices measuring transportation and land use; understand steps in spatial evolution of cities related to transportation infrastructure; understand urban transportation planning processes; understand impacts of transportation infrastructure on land use and impacts of land use on travel patterns; understand various

This information is accurate as of 6/9/2008 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 8204 Creating Good Work: Economic and Workforce Development
A-F only, 4 credit(s);
Instructor: Markusen, Ann R
Description: Student may contact the instructor or department for information.

PA 8302 Applied Policy Analysis
A-F only, 4 credit(s); prereq Intermediate microeconomics, introduction to econometrics;
Instructor: Myers Jr., Samuel L
Description: Design/evaluation of public policies. Emphasizes market/non-market contexts. Microeconomics and welfare economics of policy analysis. Econometric tools for measurement of policy outcomes. Applications to policy problems.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 repeats allowed; prereq instructor consent;
Instructor: Barnett, Michael Nathan
Description: None.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 repeats allowed; prereq instructor consent;
Instructor: Hoenack, Stephen A
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 repeats allowed; prereq instructor consent;
Instructor: Kuzma, Jennifer
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 repeats allowed; prereq instructor consent;
Instructor: Friedemann-Sanchez, Greta
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 repeats allowed; prereq instructor consent;
Instructor: Jacobs, Lawrence Rubin
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 repeats allowed; prereq instructor consent;
Instructor: Fennelly, Katherine
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 repeats allowed; prereq instructor consent;
Instructor: Bryson, John M
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 repeats 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 repeats allowed; prereq instructor consent;
Instructor: Crosby, Barbara C
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 repeats allowed; prereq instructor consent;
Instructor: Levison, Deborah
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 repeats 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 repeats 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 repeats 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 repeats allowed; prereq instructor consent;
Instructor: Brandl, John E
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 repeats allowed; prereq instructor consent;
Instructor: Kenney, Sally J
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 repeats allowed; prereq instructor consent;
Instructor: Kudrie, Robert T
Description: Student may contact the instructor or department for information.

PA 8991 Independent Study
1-3 credit(s), max credits 6, 6 repeats 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 repeats 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 repeats allowed; prereq instructor consent;
**PA 8991 Independent Study**  
1-3 credit(s), max credits 6, 6 repeats 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 repeats 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 repeats 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 repeats 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 repeats 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 repeats allowed; prereq instr consent;  
**Instructor:** Zhao, PhD, Zhirong  
**Description:** Student may contact the instructor or department for information.

**PA 8991 Independent Study**  
1-3 credit(s), max credits 6, 6 repeats 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 repeats allowed; prereq instr consent;  
**Instructor:** Allen, Ryan Patrick  
**Description:** Student may contact the instructor or department for information.

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**Public Health**  
A-302 Mayo (Box 197)

**PUBH 1003 Alcohol and College Life**  
OPT No Aud, 1 credit(s); prereq Fr or soph or PSEO;  
**Instructor:** Rothenberger III, James Henry  
**Description:** This course provides first year students with unbiased factual information about how alcohol and drug use affects college life. It reinforces personal prevention strategies and aims to maximize student and campus safety. Practical hints and tips about how to succeed socially and academically are presented in the context of research and from other students' personal experiences. **NOTE:** This is not an independent study course; there are due dates for the assignments and quizzes. For more information about this course please visit <http://www.collegelife.umn.edu>.  
**Style:** 100% Web Based. Distance learning. Approx. 3 hours of computer interaction per week.  
**Grading:** 20% reports/papers, 50% quizzes, 30% written homework. Points deducted for late work. Limited amount of late work accepted. Up to 10 points of extra credit may be earned.

**PUBH 3001 Personal and Community Health**  
2 credit(s);  
**Instructor:** Farley, Dana Mark  
**Description:** Introduction to scientific, socio-cultural, and attitudinal aspects of communicable and degenerative diseases, environmental and occupational health hazards, alcohol and drug problems; emphasis on role of education in health conservation, disease control, and drug use. The full syllabus for the course, including lecture outlines, textbook and exam information, can be found at the course URL listed below.  
**Style:** 100% Lecture.  
**Grading:** 40% final exam, 10% reports/papers, 25% other evaluation. on each of two midterm exams  
**Exam Format:** Multiple choice, fill-in-the-blank, short answer

**PUBH 3003 Fundamentals of Alcohol and Drug Abuse**  
2 credit(s); Credit will not be granted if credit has been received for: PUBH 3004;  
**Instructor:** Farley, Dana Mark  
**Description:** Lecture and special readings on the scientific, sociocultural and attitudinal aspects of alcohol and other drug problems, with special emphasis on incidence, prevalence, high risk populations, prevention, and interventions. The full syllabus for the course, including lecture outlines, textbook and exam information, can be found at <a href="http://www.epi.umn.edu/academic/syllabi.shtm">http://www.epi.umn.edu/academic/syllabi.shtm</a>.  
**Style:** 100% Lecture.  
**Grading:** 40% final exam, 10% reports/papers, 50% other evaluation. two midterm exams (25% each)  
**Exam Format:** multiple choice

**PUBH 3005 Fundamentals of Alcohol and Drug Abuse for Teacher Education**  
1 credit(s); prereq Undergrad in agricultural educ or business/marketing educ or career/technical educ or foundations of educ or [kinesiology, pre-PE] or technology educ or music educ; Credit will not be granted if credit has been received for: PUBH 3003;  
**Instructor:** Rothenberger III, James Henry  
**Description:** The course is entirely online, including all readings, quizzes and assignments. There are specific due dates for quizzes and assignments. This course is meant for teaching majors, and the primary assignment is the development of a detailed lesson plan. The lesson plan assignment assumes that students have had some educational methods coursework. The assignment guidelines are specific, but some students without pedagogy coursework have struggled with the assignment in the past.  
**Style:** Online lessons, quizzes and assignments. Students do not need to be online at specific times, but ARE REQUIRED TO MEET QUIZ AND ASSIGNMENT DUE DATES.
Grading: 10% reports/papers, 30% special projects, 60% quizzes.
Exam Format: multiple choice

PUBH 3040 Dying and Death in Contemporary Society: 
Implications for Intervention 
2 credit(s); prereq Jr or sr or instr consent ; Credit will not be granted if credit has been received for: PUBH 6040; 
Instructor: Rothenberger III,James Henry 
Description: Basic background information 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. The full syllabus for the course, including lecture outlines, textbook and exam information can be found at the website listed below.
Style: 95% Lecture. one visit to a funeral home
Grading: 30% final exam, 30% reports/papers, 20% other evaluation. on each of two mid-term exams
Exam Format: short answer/essay

PUBH 3093 Directed Study: Public Health 
1-4 credit(s), max credits 4, 4 repeats allowed; prereq instr consent ; 
Instructor: Rothenberger III,James Henry 
Description: PUBH 3093 is not a class. It is a number we use for students completing ICP Honor's Papers in order to graduate with Honor's designation.

PUBH 3093 Directed Study: Public Health 
1-4 credit(s), max credits 4, 4 repeats allowed; prereq instr consent ; 
Instructor: Farley,Dana Mark 
Description: Student may contact the instructor or department for information.

PUBH 3639 Prevention: Theory, Practice, and Application in Public Health Services 
3 credit(s); prereq Jr or sr; 
Instructor: Shanedling PhD,Stanton Barry 
Description: Student may contact the instructor or department for information.

PUBH 3801 Health Economics and Policy 
3 credit(s); prereq Course on microeconomics, course on basic statistics; Credit will not be granted if credit has been received for: APEC 3801; 
Instructor: Karaca Mandic,Pinar 
Description: Student may contact the instructor or department for information.

PUBH 6000 Topics: Community Health Education 
0.5-4 credit(s), max credits 80, 20 repeats allowed; 
Instructor: French,Simone A 
Description: Student may contact the instructor or department for information.

PUBH 6003 Fundamentals of Alcohol and Drug Abuse 
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: Rothenberger III,James Henry 
Description: The course is entirely online, including all readings, quizzes and assignments. There are specific due dates for quizzes and assignments. This course is meant for graduate education students, and the primary assignment is the development of a detailed lesson plan. The lesson plan assignment assumes that students have had some educational methods coursework. The assignment guidelines are specific, but some students without pedagogy coursework have struggled with the assignment in the past.
Style: 100% Web Based.
Grading: 25% reports/papers, 60% quizzes, 15% written homework.
Exam Format: multiple choice

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: Jones-Webb,Rhonda Jean 
Description: Student may contact the instructor or department for information.

PUBH 6034 Program Evaluation for Public Health Practice 
3 credit(s); prereq [(Community Health Education or Maternal/Child Health Education or Public Health Nutrition]] MPH major) or instr consent ; 
Instructor: Harwood PhD,Eileen M. 
Description: Student may contact the instructor or department for information.

PUBH 6040 Dying and Death in Contemporary Society: 
Implications for Intervention 
2 credit(s); prereq [Grad or professional school] student or instr consent ; Credit will not be granted if credit has been received for: PUBH 3040; 
Instructor: Rothenberger III,James Henry 
Description: Student may contact the instructor or department for information.

PUBH 6045 Skills for Policy Development 
1 credit(s); prereq Grad student in public health, previous policy related coursework; 
Instructor: Toomey,Traci Louise 
Description: Students will identify a public health-related policy issue at the local, state, or federal level that they will focus on throughout the course. This course focuses on developing skills that are relevant to policy development and implementation.
Class meetings will include a combination of lectures, guest speakers, and skill-development sessions. Students will be expected to actively participate. The goals of this course are: (1) To introduce students to strategies used to influence and shape public policy development; (2) To develop skills and self-efficacy to implement these strategies; (3) To apply these skills to one policy issue related to public health. As a result of this course, students will understand how to: (1) Use strategies to effectively use media to influence policy change; (2) Give an effective media interview; (3) Structure and give effective testimony; (4) Develop fact sheets and other written materials for legislators and media; (5) Communicate with elected officials; (6) Understand different strategies for influencing policy changes. Course Prerequisites The course is intended for graduate students who have an interest in public health policy and have previous policy-relevant coursework. This course serves as the capstone course for the SPH policy concentration.
Style: 20% Lecture, 10% Film/Video, 30% Small Group Activities, 40% Guest Speakers.
Grading: 70% written homework, 30% class participation.

PUBH 6049 Legislative Advocacy Skills for Public Health 
A-F only, 3 credit(s); prereq 6078, instr consent ; 
Instructor: Toomey,Traci Louise 
Description: Students will enroll in this course spring semester for 3 credits. Each student will be assigned to work with a lobbyist for a non-profit agency, a legislative staff person, or a legislative liaison from a public health organization. With the help of that person, the student will identify one or two issues which will be addressed in the 2007 legislative session, and follow that issue from beginning to end at the legislature. The lobbyists have agreed to permit the student to accompany him or her at functions and meetings related to the issue, so that the student will learn firsthand the political skills necessary to see an issue through the session. In addition, students will be required to participate in the necessary background work (developing materials, calling constituents, researching the issue, helping to organize testimony). The primary goal of this course is to match students with organizations that: (1) take positions on issues that are supportive of public health, and (2) have strong legislative advocacy experience. Pro public health issues will be defined based on current APHA policy positions, if they are available, or on instructor judgment, if APHA has not taken a position on the
issue. Although we try to match students based on their interests, we believe matching students with organizations with experience working on state-level policy issues is more important than working on specific content issues. Students will be required to commit a minimum of 8 hours per week on average to the course, with the expectation that those hours will be used flexibly depending upon how their issue proceeds through the legislature.

**Style:** There will be 10 class periods. Two class periods will be scheduled after the course begins. One of these will be for a tour of the Capitol and the other will be the final two-hour class to review what happened during the legislative session.

**Grading:** 35% reports/papers, 30% written homework, 35% class participation.

**PUBH 6051 Community Health Theory and Practice II**

A-F only, 3 credit(s); prereq [6050, community health education MPH major] or instr consent ;

**Instructor:** Toomey,Traci Louise

**Description:** This course was designed for Community Health Education students to provide them with information and skills needed to conceptualize, design, and implement programs that influence health-related behaviors. Goals: For students to learn a process for the development of population-level programs. In addition to reviewing the literature in an area of concern, students will participate in the design of an intervention program based on theory, etiological data, behavioral models, intervention objectives, and state-of-the-art community health education and behavior change methods. Another goal of the course is to acquire practical skills in implementing programs. Students will develop an implementation plan for the program they develop during the beginning of the course. Students will learn about (a) the opportunities and constraints of implementing programs/policy initiatives in various organizational settings and (b) how to design program materials, activity plans, timelines, and budgets. Finally, students will learn the basic requirements of grant writing by preparing a proposal for funding for their newly designed programs Objectives: 1. Learn about promising intervention approaches for selected health-related behaviors with an identified target group, including family, school, worksite, media or community-wide programs, as well as potential policy and environmental change initiatives. 2. Learn methods for developing programs and policies in different settings and for different populations. 3. Be able to write a plan for an intervention program for a given targeted group and behavior. 4. Be able to critically discuss some of the challenges of implementing programs in various organizational settings. 5. Be able to identify effective strategies for designing intervention materials for community-wide programs. 6. Will be able to develop work plans, timelines, and budgets. 7. Will understand the importance of evaluation in development and implementation of programs and policies. 8. Will be able to write a brief proposal summarizing the newly developed program Course Prerequisites: PUBH 6050 and CHE major or instructor?s permission.

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

**Grading:** 40% reports/papers, 40% written homework, 20% class participation.

**PUBH 6055 Social Inequalities in Health**

2 credit(s); prereq Hlth sci professional school student or hlth sci or soc work or pub affairs grad student or instr consent ;

**Instructor:** Jones-Webb,Rhonda Jean

**Description:** This course examines strategies to reduce race, ethnic, and social class-based health disparities. The course specifically focuses on policy, community, institutional, and individual level strategies to reduce health inequalities in the U.S. The course is designed for public health students. Students in other health professions (e.g., medicine, nursing) or human service professions (e.g. public affairs, social work) are also welcome. Consideration will be given to undergraduates on a case by case basis.

**PUBH 6074 Mass Communication and Public Health**

3 credit(s); prereq [One course in [behavioral or social science], [public health or journalism] grad student] or instr consent ;

**Instructor:** Yzer, Marco

**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 [CHE or MCH or PubH Nutr or EPI MPH or EPI] major or instr consent ;

**Instructor:** Forster,Jean

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

**PUBH 6080 Seminar: Policy, Politics, and Ethics of Public Health Decision Making**

S-N only, 2 credit(s); prereq [2nd yr MPH or MS or Phd student in [CHE or EPI or MCH or PubH nutr or clin research] or public affairs or MS/JD or PhD/JD or 3rd yr law student], instr consent ;

**Instructor:** Humphrey III,Hubert Horatio

**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:** Greaves,Ian A

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

**PUBH 6102 Issues in Environmental and Occupational Health**

A-F only, 2 credit(s); prereq Public health [MPH or MHA or certificate] student or health journalism MA major or nursing MS student or instr consent ; Credit will not be granted if credit has been received for: PUBH 3102;

**Instructor:** Allwood,Paul Bancroft

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

**PUBH 6105 Environmental and Occupational Health Policy**

A-F only, 2 credit(s); prereq Environmental health major or instr consent ;

**Instructor:** McGovern,Patricia Marie

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

**PUBH 6115 Worker Protection Law**

1 credit(s); prereq 6114 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 'fright' 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 6116 Environmental Law
1 credit(s); prereq 6114 credit will not be granted if credit received for: 5110;
Instructor: Austin, Michael L
Description: I. Course Description What legal principles protect us from pollution? Several difficult legal questions arise when pollution protection law conflicts with policy encouraging use of natural resources. Conflict also arises when the government restricts the use of property without compensating its owner. We will also consider the increasing authority of government agencies to audit businesses to assure compliance with law. II. Learning Objectives At the end of this course, students will be able to: Discuss how the interests of stakeholders are balanced in legal decision making. Describe contradictions in the law between protecting the environment and protecting individual property rights. Discuss the evolving authority of government to protect the environment. Discuss legal issues underlying several environmental public policies. 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 focus on legal principles underlying law that protects our natural environment from pollution. Especially important will be a review of the increasing authority of government agencies to audit businesses to assure compliance with law. Underlying pollution protection law is sometimes contradictory law related to encouraging resource utilization. Constitutional protection against the uncompensated public taking of private property, and traditional tort rights. 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.
Style: 75% Lecture, 20% Discussion, 5% Student Presentation.
Grading: 70% reports/papers, 20% written homework, 10% in-class presentation.

PUBH 6120 Injury Prevention in the Workplace, Community, and Home
2 credit(s);
Instructor: Gerberich PhD, Susan G
Description: Student may contact the instructor or department for information.

PUBH 6121 Topics: Injury Prevention in the Workplace, Community, and Home
1-2 credit(s), max credits 2, 1 repeat allowed; prereq [6120, [6330 or 6341]] or instr consent;
Instructor: Hedberg, Craig W
Description: Student may contact the instructor or department for information.
PUBH 6191 Air Pollution
A-F only, 3 credit(s); prereq [General, organic chemistry] or instr consent ;
Instructor: Simick, Matt
Description: Student may contact the instructor or department for information.

PUBH 6210 Public Health Medicine Seminar
S-N only, 1 credit(s); prereq [Public health medicine program MPH major or [MD degree or equiv], instr consent ];
Instructor: Lohman, William H
Description: Student may contact the instructor or department for information.

PUBH 6282 Emerging Infectious Disease: Current Issues, Policies, and Controversies
3 credit(s); prereq [instructor consent ];
Instructor: Osterholm, Michael T
Description: Student may contact the instructor or department for information.

PUBH 6303 Clinical Research Project Seminar
2 credit(s); prereq [6301, clinical research major, master's project/thesis paper [underway or near completion]] or instr consent ;
Instructor: Thomas, William
Description: This seminar is required for clinical research MS students. It allows them to present their thesis work in a preliminary form. This constitutes 50% of the class. The other 50% of the class is spent reviewing study proposals for the General Clinical Research Center (GCRC). Students critique these proposals for scientific integrity and ethical considerations. Style: 15% Lecture, 50% Discussion, 35% Student Presentation. Grading: 30% in-class presentation, 70% class participation.

PUBH 6305 Introduction to Clinical Research for Health Professionals
2 credit(s); prereq [Bachelor's degree or degree from health professional program or grad student in [dentistry or medicine or nursing or pharmacy or public health or veterinary medicine]], instr consent ; Credit will not be granted if credit has been received for: PUBH 6301;
Instructor: Luepker MD, Russell V
Description: This course will provide learning opportunities on the design and implementation of clinical research protocols. It is an introductory course intended for nurses and other professional staff working in or preparing to work in a clinical research setting. It aims to enhance the knowledge and skills of research staff working in medical research in humans. Style: 80% Lecture, 20% Student Presentation. Grading: 25% mid exam, 30% final exam, 30% reports/papers, 10% in-class presentation.

PUBH 6309 Clinical Research: Career Development
S-N only, 1 credit(s), max credits 2; prereq CAPS scholar or AHC faculty/post-doctoral fellow in similar training stages or instr consent ;
Instructor: Luepker MD, Russell V
Description: This course is intended to provide advanced skills for faculty development in an academic clinical research career. It includes paper and grant writing skills, interaction with AHC research resources, and career development advice. It emphasizes the opportunities of multidisciplinary approaches to contemporary research questions. Style: 20% Lecture, 40% Discussion, 40% Student Presentation. Grading: 10% attendance, 40% in-class presentation, 50% class participation.

PUBH 6320 Fundamentals of Epidemiology
A-F only, 3 credit(s); prereq AHC or health journalism student or instr consent ;
Instructor: Punnyko, 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: Luepker MD, Russell V
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 6334 Human Behavior II
A-F only, 2 credit(s); prereq [6333, Epidemiology grad student in behavioral track] or instr consent ;
Instructor: Luepker MD, Russell V
Description: This course is intended to provide advanced skills for faculty development in an academic clinical research career.

PUBH 6334 Human Behavior II
A-F only, 2 credit(s); prereq [6333, Epidemiology grad student in behavioral track] or instr consent ;
Instructor: Luepker MD, Russell V
Description: This course is intended to provide advanced skills for faculty development in an academic clinical research career.

PUBH 6342 Epidemiologic Methods II
3 credit(s); prereq [6341 w/grade of at least a B- or 6320 w/grade of at least an A-], [6414 or 6450 with a grade of at least a B-]] or instr consent ;
Instructor: Pankow, James Scott
Description: Grading: 20% mid exam, 20% final exam, 5% reports/papers, 25% special projects, 20% written homework, 10% class participation.

PUBH 6363 Design and Analysis of Group-Randomized Trials in Epidemiology
3 credit(s); prereq 6331, 6451, epidemiology major, instr consent ;
Instructor: Hannan, Peter J
Description: Student may contact the instructor or department for information.

PUBH 6385 Epidemiology and Control of Infectious Diseases
2 credit(s); prereq Epidemiology major or instr consent ;
Instructor: Litson, Alan Raymond
Description: Principles and practice of infectious disease epidemiology, including how communicable diseases and their control affect public health locally, nationally and internationally. Course includes: general methods including outbreak investigation and disease surveillance; major infectious diseases and modes of transmission; and different control strategies, including immunization and screening. Style: 90% Lecture, 10% Discussion. Grading: 25% mid exam, 60% reports/papers, 15% attendance.

PUBH 6387 Cancer Epidemiology
2 credit(s); prereq [6320 or 6330 or 6341], [health sciences grad student or professional school student]] or instr consent ;
Instructor: Anderson, Kristin Ellen
Description: Student may contact the instructor or department for information.

PUBH 6390 Topics: Epidemiology
0.5-4 credit(s), max credits 80, 20 repeats allowed;
Instructor: Oakes, J Michael
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]] major or instr consent ; Credit will not be granted if credit has been received for: PUBH 6450;
Instructor: Davey, Cynthia S
Description: Student may contact the instructor or department for information.
PUBH 6415 Biostatistical Methods II
3 credit(s); prereq [6414, [public health [MPH or certificate] student or environmental health [MS or PhD] or health [journalism MA or health informatics [MS or PhD]] major] or instr consent ;
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: Eberly,Lynn Elizabeth
Description: Student may contact the instructor or department for information.

PUBH 6451 Biostatistics II
4 credit(s); prereq [[[6420, 6450] or [6414, 6415]] with grade of at least B, health sciences grad student] or instr consent ;
Instructor: Thomas,William
Description: Student may contact the instructor or department for information.

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

PUBH 6544 Principles of Problem Solving in Health Services Organizations
A-F only, 3 credit(s); prereq 6541, completed 30 hours of MHA coursework, health care administration student;
Instructor: Potthoff,Sandra Jean
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: Langan,Patrick J
Description: Student may contact the instructor or department for information.

PUBH 6551 Contemporary Problems in Health Care
1-2 credit(s), max credits 2, 1 repeat allowed; prereq Grad student;
Instructor: Weckwerth,Vernon E
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: Grant,Leslie Alan
Description: Student may contact the instructor or department for information.

PUBH 6554 Health Care Marketing and Strategy
A-F only, 2 credit(s); prereq Management coursework;
Instructor: Hillestad,Steven G
Description: Student may contact the instructor or department for information.

PUBH 6557 Health Finance I
2 credit(s); prereq [[Health care admin or public health admin/policy major], familiarity with computerized spreadsheets] or instr consent ;
Instructor: Riley,William J
Description: Student may contact the instructor or department for information.

PUBH 6558 Health Finance II
4 credit(s); prereq [[Health care admin or PubH admin/policy] student, familiarity with computerized spreadsheets]] or instr consent ;
Instructor: Salley,Troy Alan
Description: Student may contact the instructor or department for information.

PUBH 6561 Quantitative Methods Applied to Health Administration Problems
A-F only, 2 credit(s); prereq Health care admin student or instr consent ;
Instructor: Weckwerth,Vernon E
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: Grant,Leslie Alan
Description: Student may contact the instructor or department for information.

PUBH 6570 Topics: Health Care Administration
1-4 credit(s), max credits 20, 5 repeats allowed; prereq Health care admin student or instr consent ;
Instructor: Mosser MD,Gordon
Description: Student may contact the instructor or department for information.

PUBH 6570 Topics: Health Care Administration
1-4 credit(s), max credits 20, 5 repeats allowed; prereq Health care admin student or instr consent ;
Instructor: Potthoff,Sandra Jean
Description: Student may contact the instructor or department for information.

PUBH 6589 Medical Technology Evaluation and Market Research
2 credit(s);
Instructor: Parente,Stephen T
Description: Student may contact the instructor or department for information.

PUBH 6596 Legal Considerations in Health Services Organizations
A-F only, 3 credit(s); prereq Health care admin student;
Instructor: Feinwachs,David
Description: Student may contact the instructor or department for information.

PUBH 6605 Reproductive and Perinatal Health
2 credit(s); prereq Public health student or grad student or instr consent ;
Instructor: Hellerstedt,Wendy L
Description: Student may contact the instructor or department for information.

PUBH 6606 Children’s Health: Issues, Programs, and Policies
2 credit(s); prereq Public health student or grad student or instr consent ;
Instructor: Oberg MD,Charles N
Description: Student may contact the instructor or department for information.

PUBH 6607 Adolescent Health: Issues, Programs, and Policies
2 credit(s); prereq Public health student or grad student or instr consent ;
Instructor: Hellerstedt,Wendy L
Description: Student may contact the instructor or department for information.

PUBH 6627 Sexuality Education: Criteria, Curricula, and Controversy
1 credit(s); prereq Prefer public health student or grad
student or professional in public health or education;
Instructor: Bret,Lynn Muenzenberger
Description: Student may contact the instructor or department for information.

PUBH 6634 Advocacy and Children’s Rights
2 credit(s); prereq Public health student or grad student or instr consent ;
Instructor: Oberg MD,Charles N
Description: Student may contact the instructor or department for information.

PUBH 6705 Community Health Assessment
3 credit(s); prereq Public health admin/policy major or instr consent ;
Instructor: McBean,Alexander Marshall
Description: Student may contact the instructor or department for information.

PUBH 6711 Public Health Law
2 credit(s); prereq Grad student or professional school student or instr consent ;
Instructor: Barry,Anne M
Description: Student may contact the instructor or department for information.

PUBH 6723 Lean Management in Health Care
1 credit(s); prereq instr consent ;
Instructor: Wholey,Douglas R
Description: Student may contact the instructor or department for information.

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 6726 Medical Device Industry: Business and Public Policy
3 credit(s); prereq MPH or MHA or grad student or instr consent ;
Instructor: Connor,Robert Alan
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: Begun,James Warren
Description: Intended primarily for students who aim to be leaders in healthcare delivery organizations or public health organizations or programs. The purpose of the course is to improve students’ abilities to serve as leaders in organizations, especially to lead processes of organizational change. Students will be encouraged to identify their own individual leadership competencies so that they can make best use of them in their future roles.
Style: 25% Lecture, 5% Film/Video, 25% Discussion, 15% Small Group Activities, 20% Student Presentation, 10% Guest Speakers.
Grading: 20% reports/papers, 40% reflection paper, 20% in-class presentation, 20% class participation.

PUBH 6730 International Comparative Health Systems
2 credit(s); prereq Public health MPH or environmental health [MS or PhD] or health services research/policy/administration [MS or PhD] or epidemiology PhD or clinical research MS or instr consent ;
Instructor: Blewett,Lynn Ann
Description: Student may contact the instructor or department for information.

PUBH 6732 Topics and Methods in Global Health Assessment
2 credit(s); prereq [[5705 or Concurrent registration is required (or allowed) in 5705], 5730, grad course in epidemiology], [public health MPH or environmental health [MS or PhD] or health services research/policy/administration [MS or PhD] or epidemiology PhD or clinical research MS] or instr consent ;
Instructor: McBean,Alexander Marshall
Description: Student may contact the instructor or department for information.

PUBH 6741 Ethics in Public Health: Professional Practice and Policy
A-F only, 1 credit(s); prereq Public health [MPH or MHA or certificate] student or environmental health [MS or PhD] major or instr consent ;
Instructor: DeBruin PhD,Debra Ann
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); prereq Public health [MPH 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: DeBruin PhD,Debra Ann
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); prereq Public health MPH or certificate student or dentistry MS or environmental health MS or PhD major or instr consent ;
Instructor: Begun,James Warren
Description: Equips students with analytical skills to understand organizations and organization behavior. Develops management and leadership competencies that enable students to make a positive difference in their work organizations and in the health of populations.
Style: 50% Lecture, 5% Film/Video, 25% Discussion, 20% Small Group Activities.
Grading: 30% mid exam, 40% reports/papers, 30% written homework.

PUBH 6752 Public Health Management
A-F only, 3 credit(s); prereq [Public health [MPH or certificate] student or [environmental health [MS or PhD] or [health services research, policy/admin [MS or PhD]] major or instr consent ;
Instructor: Wholey,Douglas R
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 6803 Conducting a Systematic Literature Review
OPT No Aud, 2 credit(s); prereq Basic knowledge of epidemiology;
Instructor: Kane,Robert L
Description: Student may contact the instructor or department for information.

PUBH 6809 Advanced Methods in Health Decision Science
OPT No Aud, 3 credit(s); prereq [6717 or intro course in decision analysis], some facility with mathematical notation/reasoning;
Instructor: Kuntz,Karen M
Description: Student may contact the instructor or department for information.
PUBH 6810 Survey Research Methods
OPT No Aud, 3 credit(s);
Instructor: Rockwood,Todd H
Description: Student may contact the instructor or department for information.

PUBH 6835 Principles of Health Policy
2 credit(s); prereq [Pub hllh [MPH or certificate] or pub affairs MPA or healthcare admin MHA or [health serv research, policy/admin [MS or PhD]]] student or instr consent ;
Instructor: Foote,Susan Bartlett
Description: Student may contact the instructor or department for information.

PUBH 6845 Using Demographic Data for Policy Analysis
A-F only, 3 credit(s); prereq [Grad level research methods course, basic statistics course] or instr consent ;
Instructor: Davern,Michael E
Description: Student may contact the instructor or department for information.

PUBH 6852 Program Evaluation in Health and Mental Health Settings
2 credit(s);
Instructor: Garrard,Judith M
Description: Student may contact the instructor or department for information.

PUBH 6855 Medical Sociology
3 credit(s); prereq [[Grad or professional school] student, previous experience with statistical software] or instr consent ;
Instructor: McAlpine,Donna D
Description: Student may contact the instructor or department for information.

PUBH 6861 Health Insurance
A-F only, 2 credit(s); prereq Microecon theory course or instr consent ;
Instructor: Nyman,John A.
Description: Student may contact the instructor or department for information.

PUBH 6864 Conducting Health Outcomes Research
3 credit(s); prereq Introductory course in epidemiology or health services research methods or instr consent ;
Instructor: Radosevich,David M
Description: Student may contact the instructor or department for information.

PUBH 6806 Global Nutrition
2 credit(s); prereq Grad student;
Instructor: Himes,John H
Description: Student may contact the instructor or department for information.

PUBH 6914 Community Nutrition Intervention
3 credit(s); prereq Public health [MPH or certificate] student or instr consent ;
Instructor: Neumark-Sztainer,Dianne Ruth
Description: This class provides students with the tools for developing community nutrition interventions. Students will learn about utilizing behavioral theory, conducting needs assessments, writing program objectives, developing intervention strategies, evaluating program implementation and effectiveness, planning a budget, and writing grant proposals. Students pick their projects based on their personal interests and work in small groups. Previous examples include: obesity prevention for school-aged children, eating disorder prevention for adolescent girls; increasing whole-grain consumption in college students, and increasing fruit and vegetable intake in preschoolers.
Style: 40% Lecture, 10% Discussion, 20% Small Group Activities, 10% Student Presentation, 20% Guest Speakers.
Grading: 25% reports/papers, 50% special projects, 25% class participation.

PUBH 6915 Nutrition Assessment
2 credit(s); prereq Public health nutrition major or instr consent ;
Instructor: Himes,John H
Description: Student may contact the instructor or department for information.

PUBH 6933 Nutrition and Chronic Diseases
2 credit(s);
Instructor: Robien,Kimberly
Description: This course covers issues in nutrition and public health, with an emphasis on how nutrition research is translated into dietary recommendations for public health. We will focus on the relation of nutrition to obesity, cardiovascular disease, diabetes, and cancer.
Style: 50% Lecture, 45% Discussion, 5% Student Presentation. The course is structured as a weekly seminar with an hour of lecture and an hour of discussion.
Grading: 50% reports/papers, 25% in-class presentation, 25% class participation.
Exam Format: No exams in this graduate level course

This information is accurate as of 6/9/2008 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.
PUBH 7470 Statistics for Translational and Clinical Research
3 credit(s); prereq [[6450, 6451] or equiv], [grad student in biostatistics or statistics or clinical research], familiarity with SAS;
Instructor: Le, Chap T.
Description: Student may contact the instructor or department for information.

PUBH 7475 Statistical Learning and Data Mining
3 credit(s); prereq [[6450, 6452] or equiv], programming background in [FORTRAN or C/C++ or JAVA or Splus/R] or instr consent; 2nd yr MS recommended;
Instructor: Pan, Wei
Description: Student may contact the instructor or department for information.

PUBH 7581 Gerontology and Services for Long Term Care Residents
A-F only, 2-4 credit(s), max credits 4, 1 repeat 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 7784 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 7791 Independent Study: Public Health Administration and Policy
1-4 credit(s), max credits 4, 4 repeats allowed; prereq Public health admin/policy major, instr consent;
Instructor: Nyman, John A.
Description: Student may contact the instructor or department for information.

PUBH 8120 Occupational Injury Prevention Research Training Program Research Seminar
S-N only, 1 credit(s), max credits 12, 12 repeats allowed; prereq [5120, [6330 or 6341], 6450, environmental health major, [OIPRTP specialty or equiv]] or instr consent;
Instructor: Gerberich PhD, Susan G
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 repeats allowed; prereq 8140, doctoral student in public health, instr consent; [6330, 6340] or [6341, 6342] recommended;
Instructor: Church, Timothy Robert
Description: Student may contact the instructor or department for information.

PUBH 8142 Epidemiologic Uncertainty Analysis
S-N only, 2 credit(s); prereq 8140;
Instructor: Maldonado, George
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 repeats allowed; prereq 6104;
Instructor: Wattenberg, Elizabeth Vaughn
Description:
Style: 50% Discussion, 50% Student Presentation.
Grading: 50% in-class presentation, 50% class participation.

PUBH 8377 Seminar: Chronic Disease and Behavioral Epidemiology
S-N only, 1 credit(s), max credits 2; prereq Epi grad major or instr consent;
Instructor: Harlow, Bernard Leslie
Description: This course offers an intimate recapitulation of the weekly seminar of the Division of Epidemiology and Community Health. In the hour immediately following the seminar, the class meets with the seminar presenter and course instructors for an indepth examination of the topic presented. Classroom activities include review and clarification of the seminar material, connection of this material to other areas of epidemiology and public health, and open-ended questions and answers with the students.

PUBH 8821 Health Economics II
A-F only, 3 credit(s); prereq [5120 or 1 credit(s) prerequisite]; prereq [5120 or 1 credit(s) prerequisite];
Instructor: Kane, Rosalie A
Description: Student may contact the instructor or department for information.

PUBH 8822 Health Economics I
A-F only, 3 credit(s); prereq One course each in intermediate microeconomics, calculus, intro to linear algebra;
Instructor: Feldman, Roger D
Description: Student may contact the instructor or department for information.

PUBH 8821 Health Economics II
A-F only, 3 credit(s); prereq 8820 or instr consent;
Instructor: Town, Robert James
Description: Student may contact the instructor or department for information.

PUBH 8831 Writing for Research

This information is accurate as of 6/9/2008 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.
**Radiation Therapy**

101 Wesbrook Hall

**RTT 4601 Project**
A-F only, 1 credit(s); prereq 3696, BAS RTT student;
**Instructor:** STAFF
**Description:** The student will research a topic of their choice and present their paper to faculty and students. The student will be encouraged to submit the paper for publication. This is a guided independent study project. Faculty will be available to provide guidance and input into the development of the project. In cooperation with Mayo School of Health Sciences, Rochester.

**RTT 4796 Clinical Practicum V**
A-F only, 3 credit(s); prereq 3596, 3696, 4596, 4696, BAS RTT student;
**Instructor:** STAFF
**Description:** In this final clinical rotation the student is responsible for demonstrating knowledge and full comprehension of all radiation treatment and simulation procedures. This session allows students to enhance their problem solving abilities as they assist with the integration of dosimetric changes in a treatment and participate in advanced level procedures. Includes spot checks or completion of any remaining clinical competency exams. In cooperation with Mayo School of Health Sciences, Rochester.

**Recreation Resource Management**

115 Green Hall

**RRM 3201 Introduction to Travel and Tourism**
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: RRM 5201;
**Instructor:** Messer, Cynthia Cosdon
**Description:** Travel and tourism is one of the largest industries in the world today. In this course, students are introduced to the nature, structure and complexity of the travel and tourism industry as they explore its evolution, the types and functions of the various sectors, the tourism distribution system, the role of stakeholders and tourist motivations.
**Style:** 50% Lecture, 25% Discussion. guests, inclass activities, videos
**Grading:** 40% mid exam, 20% final exam, 15% reports/papers, 20% special projects, 5% class participation. 2 exams plus final, individual case study, group paper with presentation
**Exam Format:** exams use a combination of formats

**RRM 4232W Managing Recreational Lands**
A-F only, 4 credit(s); Credit will not be granted if credit has been received for: RRM 4232W;
**Instructor:** Anderson PhD, Dorothy Helen
**Description:** This course is designed to provide students with an understanding of the principles and practices of recreation management of wildlands. Specific objectives are to: 1) understand federal recreation land management policy and organization, 2) develop an understanding of conceptual frameworks for recreation resource and visitor use management, 3) develop management tools to reduce recreation related impacts and conflicts, and 4) demonstrate an understanding of course material by developing a recreation management plan and a resource impact tool to monitor visitor caused impacts to recreation areas.
**Style:** 40% Lecture, 35% Discussion, 15% Laboratory.
**Grading:** 22% mid exam, 12% final exam, 17% reports/papers, 20% special projects, 5% in-class presentation, 14% class participation, 10% other evaluation. field work
**Exam Format:** essay

**Recreation, Park, and Leisure Studies**

220 Cooke Hall

**REC 3551 Administration and Finance of Leisure Services**
A-F only, 4 credit(s); prereq [3541W or instr consent ], rec major;
**Instructor:** Feldman, Harvey M
**Description:** Principles/practices of financing/managing leisure service agencies in public/private sector.

**REC 3601W Leisure and Human Development**
3 credit(s); Meets CLE req of Writing Intensive;
**Instructor:** Magnuson, Connie
**Description:** Course Description This course provides students with opportunities to explore issues associated with the many roles of leisure throughout human development. Students will understand the sequence of human development and the processes that underlie it through the utilization of the lifespan perspective. The four domains of development-physical, social, cognitive, and emotional are examined to illustrate an integrative approach to human development and the role of leisure. This course will enable students to understand the principles and procedures for designing programs, services, and facilities relative to an individual's values, attitudes, identity, culture, and gender and their placement in the lifecycle. Students will have the following competencies upon completion of the course: 1) Understanding of the significance of play, recreation and leisure...
throughout the life cycle relative to the individual's attitudes, values, behaviors and use of resources. (NRPA 8.04) 2) Ability to promote, advocate, interpret, and articulate the concerns of leisure services systems for all populations and services. (NRPA 8.15) 3) Understanding of human growth and development throughout the life cycle including the contributions of leisure to growth, development, and self-expression. (NRPA 8.18) 4) Ability to utilize effectively the tools of communication, including technical writing, speech, and audio-visual techniques. (NRPA 8.35) 5) Knowledge of principles and procedures for proper social, cultural and environmental design of leisure services, areas, and facilities. (NRPA 8.24) 6) Field experience prior to internship. (NRPA 8.40) Readings Various articles and handouts. There is no assigned textbook. Method of Instruction The class will be presented as a cooperative learning seminar with input and ideas from all members. Participation in class discussions regarding the readings will be required. The instructor will act as a facilitator with mutual exchange and defense of ideas by students. Course Requirements 1) Class Discussion and Participation (20 points) 2) Recreation Observations (3) (15 points) Due April 1st. Students will select three different activities involving three different age groups in the community for observation. 3) Research Paper, 8-10 pages (40 points) Due April 22nd. Students will select an issue in recreation today that is of interest to them. The paper will present the literature and research written regarding their topic and the populations that are involved/effected with/by this issue. 4) Group Presentation (25 points) A 30-minute presentation will be given by each group on a specific age group and the role of leisure and recreation for that population. The presentation should be treated as if it were being given at a professional conference. The use of visual aids should be part of the presentation.

**Course Information:**

**REC 3796 Senior Internship in Recreation, Park, and Leisure Studies**

- **S-N only, 1-12 credit(s), max credits 15, 1 repeat allowed; prerequisite Rec sr, instr consent;**
- **Instructor:** Feldman, Harvey M
- **Description:** Supervised field experience for pre-professional students in selected agencies. This is essentially a full-time continuing experience in a leisure services assignment. The internship placement is related to the students option area. The internship is an in-depth supervised laboratory experience where the student can implement and test her/his classroom learning.

- **Objectives and Outcomes:**
  1. To augment and reinforce academic coursework by applying academic knowledge to a practical setting.
  2. To provide students with experience in program operation administration and supervisory duties as well as direct service to clients.
  3. To develop leisure service management and practice skills and abilities under the guidance of a professional mentor.
  4. To assess the students abilities in a range of leisure service management and practice skills.
  5. To observe, develop and practice ethical and professional behaviors in a leisure service organization setting.
  6. To understand and apply organizational techniques to foster effective relationships with clients, staff, management and governing bodies.
  7. To develop an understanding of critical issues in leisure services.

- **Style:** Fieldwork
- **Grading:** 100% other evaluation. field work at recreation agency

**REC 3796 Senior Internship in Recreation, Park, and Leisure Studies**

- **S-N only, 1-12 credit(s), max credits 15, 1 repeat allowed; prerequisite Rec sr, instr consent;**
- **Instructor:** Magnuson, Connie
- **Description:** Supervised field experience for pre-professional students in selected agencies.

**REC 3796 Senior Internship in Recreation, Park, and Leisure Studies**

- **S-N only, 1-12 credit(s), max credits 15, 1 repeat allowed; prerequisite Rec sr, instr consent;**
- **Instructor:** Russell, Keith C.
- **Description:** Supervised field experience for pre-professional students in selected agencies.

**REC 3993 Directed Study in Recreation, Park, and Leisure Studies**

- **1-9 credit(s), max credits 24, 24 repeats allowed; prerequisite Rec major, instr consent;**
- **Instructor:** Magnuson, Connie
- **Description:** Scholarly projects (e.g., library or field research) or demonstration projects.

**REC 3993 Directed Study in Recreation, Park, and Leisure Studies**

- **1-9 credit(s), max credits 24, 24 repeats allowed; prerequisite Rec major, instr consent;**
- **Instructor:** Allison JD, Rayla
- **Description:** Scholarly projects (e.g., library or field research) or demonstration projects.

**REC 3993 Directed Study in Recreation, Park, and Leisure Studies**

- **1-9 credit(s), max credits 24, 24 repeats allowed; prerequisite 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**

- **1-9 credit(s), max credits 24, 24 repeats allowed; prerequisite 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**

- **1-9 credit(s), max credits 24, 24 repeats allowed; prerequisite Rec major, instr consent;**
- **Instructor:** Russell, Keith C.
- **Description:** Scholarly projects (e.g., library or field research) or demonstration projects.

**REC 5111 Sports Facilities**

- **A-F only, 3 credit(s); prerequisite Kin or Rec major or instr consent;**
- **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, 10% Student Presentation, 15% Field Trips, 5% Guest Speakers.
- **Grading:** 40% 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
interpretation and research. Course Focus and Objectives: The goal of this course is to introduce students to the broad themes of recreational land policy in the United States. This introduction is provided through detailed examination of selected historical and contemporary policy issues. Policy is viewed as the product of social conflict over the use of public resources. With that in mind, our emphasis is placed on understanding the ideas underlying historical policy decisions and contemporary issues. Upon completion of this course students should be able to: a) identify and explain the significance of the major issues, laws, places, and programs that have shaped recreation land policy in the U.S. especially National Parks, National Forests, state and county parks, etc; b) describe and interpret the factors leading to the establishment of recreation land policy for the National Park Service, the Forest Service, Bureau of Land Management and State and Local Parks; c) identify and analyze major contemporary issues in recreation land policy and management.

Grading: 20% final exam, 30% reports/papers, 30% in-class presentation, 20% class participation.

Exam Format: Take home essay

REC 5301 Wilderness and Adventure Education
A-F only, 4 credit(s);
Instructor: Bailey, Andrew William
Description: Rationale for, methods in applying wilderness/adventure education programs in education, recreation, corporate, human service settings. Emphasizes adventure/wilderness program management.

REC 5371 Sport and Society
A-F only, 3 credit(s); prereq [3126, grad student] or instr consent;
Instructor: LaVoi, Nicole Marie
Description: This course examines people and their behaviors within sport contexts from socio-cultural perspectives and how social institutions (e.g., family, church, government) and social constructions (e.g., gender, class, race, sexual identity) intersect with sport to influence behavior. Course Objectives 1. To introduce students to the field of sport sociology by providing a broad overview of the major areas of the discipline. 2. To describe the complex and politicized relationship between sport, culture, and society. 3. To understand how identity is shaped, in part, by the dominant values and norms of a particular society, and how the generally conservative institution of sport attempts to indoctrinate people into the dominant system. 4. To understand how characteristics that are unique to sport can contribute to identity formation that sometimes runs counter to prevailing societal norms (e.g. athlete privileges, proscribed violence within hockey, culture of misogyny within football locker rooms, etc.) 5. To identify and understand movements towards equality and social justice in an increasingly multicultural and globalized sporting environment. 6. To describe how ?social problems? such as violence, sexism, racism and homophobia in sport relate to larger society. 7. To describe how race, ethnicity, class, gender, sexual orientation, and disability are negotiated within sport. 8. To describe how technology has influenced sport and contemporary notions of the ?human athletic body.? 9. To identify and critique future trends in sport 10. To develop critical writing and thinking skills.

Style: 50% Lecture, 10% Film/Video, 25% Discussion, 5% Laboratory, 5% Small Group Activities, 5% Guest Speakers.
Grading: 10% final exam, 15% special projects, 5% attendance, 70% reflection paper.

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, Phillip L
Description: Theories/techniques in administration/management of sport enterprises. Organizational theory/policy, practical examples of sport management skills/strategies.

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: Legal Aspects of Sport and Recreation
A-F only, 4 credit(s); prereq 3551 or 5461 or instr consent;
Instructor: STAFF
Description: Legal issues related to recreation, park, and sport services.

REC 5801 Legal Aspects of Sport and Recreation
A-F only, 4 credit(s); prereq 3551 or 5461 or instr consent;
Instructor: STAFF
Description: Legal issues related to recreation, park, and sport services/facilities with public/private sectors.

REC 5900 Special Topics: Contemporary Issues in Leisure Services
1-12 credit(s), max credits 12, 12 repeats allowed;
Instructor: Larson, Jay Kristopher
Description: Student may contact the instructor or department for information.

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 5821;
Instructor: Kim, Lisa A
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 5701 Positive Youth Development Programming
A-F only, 3 credit(s); prereq Upper div undergrad or grad student or instr consent;
Instructor: Lewis, T. Grant
Description: Positive Youth Development Programming (PYDP) focuses on engaging students to discover, employ, evaluate, and appreciate the processes and procedures inherent in designing, implementing, and evaluating programs for youth within the realm of out-of-school time. The course will place an emphasis on identifying the political, social, and cultural issues that are salient to the profession of youth development, recognizing and analyzing the characteristics and processes of youth who are developing in a positive manner, and a grasp of the process of a preventative, developmental approach to the programming of positive, healthy activities for youth. In addition, the course emphasizes the philosophy and purposes of youth development programs and organizations; principles and procedures for developing, coordinating, and implementing youth development programs; and examining research and practice in youth-at-risk initiatives. Students will be presented with opportunities to demonstrate how youth learn through the use of various youth development concepts and initiatives (i.e.: learning styles, experiential education, prevention education, cooperative learning) by engaging in and designing activities that incorporate these strategies. The course content is interdisciplinary in nature, and is grounded in the tenets of experiential education (per the work of John Dewey). PYDP is intended as preparation for those students preparing to facilitate and work with young people in a variety of settings, including municipal recreation, sport programming, camps, outdoor education, and traditional education. Students enrolled in PYDP will have the opportunity to enhance and enrich their personal and professional development through the exploration of experiential education that targets the psychological, physical and social development of multicultural and multigenerational participants in youth development programs. It is expected that students will have had prior experience working with youth in the capacity of an educator, instructor, leader, guide or mentor. Emphasis will be placed on active learning, discussion, and group work, with service learning and project development the primary sources of assessment.

Style: 30% Discussion, 30% Small Group Activities, 10% Student Presentation, 5% Guest Speakers, 25% Service Learning.
Description:

REC 5992 Readings: Recreation
1-3 credit(s), max credits 9, 9 repeats allowed; prereq REC major, instr consent;
Instructor: Buysse, Jo Ann
Description: Independent study under tutorial guidance by faculty member on particular topic(s) not covered in regular coursework.

REC 5992 Readings: Recreation
1-3 credit(s), max credits 9, 9 repeats allowed; prereq 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 5992 Readings: Recreation
1-3 credit(s), max credits 9, 9 repeats allowed; prereq REC major, instr consent;
Instructor: Allison JD, Rayla
Description: Independent study under tutorial guidance by faculty member on particular topic(s) not covered in regular coursework.

REC 5992 Readings: Recreation
1-3 credit(s), max credits 9, 9 repeats allowed; prereq REC major, instr consent;
Instructor: Russell, Keith C.
Description: Independent study under tutorial guidance by faculty member on particular topic(s) not covered in regular coursework.

Description:

REC 5995 Problems in Recreation, Park, and Leisure Studies
1-12 credit(s), max credits 30, 30 repeats allowed; prereq [MEd or grad student], instr consent;
Instructor: Kane, Mary Jo
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 5995 Problems in Recreation, Park, and Leisure Studies
1-12 credit(s), max credits 30, 30 repeats allowed; prereq [MEd or grad student], instr consent;
Instructor: Ross, Stephen D
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 5995 Problems in Recreation, Park, and Leisure Studies
1-12 credit(s), max credits 30, 30 repeats allowed; prereq [MEd or grad student], instr consent;
Instructor: Kihl, Lisa 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 5995 Problems in Recreation, Park, and Leisure Studies
1-12 credit(s), max credits 30, 30 repeats allowed; prereq [MEd or grad student], instr consent;
Instructor: Kihl, Lisa 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.

Description:

REC 6796 Practicum in Recreation, Park, and Leisure Studies
S-N only, 3-9 credit(s), max credits 36, 12 repeats allowed; prereq [Rec MEd or grad student], instr consent;
Instructor: Magnuson, Connie
Description: Student may contact the instructor or department for information.

REC 6796 Practicum in Recreation, Park, and Leisure Studies
S-N only, 3-9 credit(s), max credits 36, 12 repeats 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 36, 12 repeats allowed; prereq [Rec MEd or grad student], instr consent;
Instructor: Kane, Mary Jo
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 36, 12 repeats allowed; prereq [Rec MEd or grad student], instr consent;
Instructor: Kane, Mary Jo
Description: Supervised experiences in program operation, management, administration, and supervisory duties in therapeutic recreation, leisure services, or sport management.

Description:

This information is accurate as of 6/9/2008 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.
RSC 5294 Independent Study in Rehabilitation Science
1-3 credit(s), max credits 3, 3 repeats allowed; prerequisite 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 repeats allowed; prerequisite 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 repeats allowed; prerequisite 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 repeats allowed; prerequisite Rehabilitation science student or program approval;
Instructor: Kimlebery, Teresa Jacobson
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 repeats allowed; prerequisite Rehabilitation science student or program approval;
Instructor: Di Fabio, Richard P
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 repeats allowed; prerequisite Rehabilitation science student or program approval;
Instructor: Stern, PhD, Erica Beth
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 repeats allowed; prerequisite Rehabilitation science student or program approval;
Instructor: Thompson, PhD, LaDora V
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 repeats allowed; prerequisite 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 repeats allowed; prerequisite 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 repeats allowed; prerequisite 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 repeats allowed; prerequisite Rehabilitation science student or program approval;
Instructor: Kimlebery, Teresa Jacobson
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 repeats allowed; prerequisite Rehabilitation science student or program approval;
Instructor: Di Fabio, Richard P
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 repeats allowed; prerequisite Rehabilitation science student or program approval;
Instructor: Stern, PhD, Erica Beth
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 repeats allowed; prerequisite Rehabilitation science student or program approval;
Instructor: Thompson, PhD, LaDora V
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 repeats allowed; prerequisite 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 repeats allowed; prerequisite 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 repeats allowed; prerequisite Rehabilitation science student or program approval;
Instructor: Mathiowetz, Virgil G
Description: Student may contact the instructor or department for information.
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RSC 8170 Special Topics in Rehabilitation Science
A-F only, 1 credit(s), max credits 3, 3 repeats 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 8170 Special Topics in Rehabilitation Science
A-F only, 1 credit(s), max credits 3, 3 repeats allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Kimbrey, Teresa Jacobson
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 repeats 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 8170 Special Topics in Rehabilitation Science
A-F only, 1 credit(s), max credits 3, 3 repeats 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 8170 Special Topics in Rehabilitation Science
A-F only, 1 credit(s), max credits 3, 3 repeats 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 repeats 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 8170 Special Topics in Rehabilitation Science
A-F only, 1 credit(s), max credits 3, 3 repeats 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 8170 Special Topics in Rehabilitation Science
A-F only, 1 credit(s), max credits 3, 3 repeats 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 repeats 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 repeats 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 repeats allowed; prereq [Rehabilitation science student or program permission], instr consent;
Instructor: Kimbrey, Teresa Jacobson
Description: Student may contact the instructor or department for information.

RSC 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 repeats 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 repeats 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 repeats 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 8185 Problems in Rehabilitation Science
1-3 credit(s), max credits 3, 3 repeats 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 repeats 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 repeats 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 repeats 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 8188 Teaching Practicum
A-F only, 1-5 credit(s), max credits 5, 1 repeat allowed; prereq [Rehabilitation science student or program permission], instr consent;
RSC 8188 Teaching Practicum
A-F only, 1-5 credit(s), max credits 5, 1 repeat 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 repeat 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 repeat 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 repeat 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 repeat 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 8188 Teaching Practicum
A-F only, 1-5 credit(s), max credits 5, 1 repeat 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 8188 Teaching Practicum
A-F only, 1-5 credit(s), max credits 5, 1 repeat 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 8188 Teaching Practicum
A-F only, 1-5 credit(s), max credits 5, 1 repeat allowed; prereq [Rehabilitation science student or program permission], instr consent ;
Instructor: Kimberley, Teresa Jacobson
Description: Student may contact the instructor or department for information.

RSC 8282 Problems in Human Movement
A-F only, 4 credit(s); prereq [Rehabilitation science student or program permission], instr consent ;
Instructor: Kimberley, Teresa Jacobson
Description: Student may contact the instructor or department for information.

RELS 1001 Introduction to the Religions of the World
3 credit(s); prereq credit will not be granted if credit already received for: ReIA 1001; Meets CLE req of International Perspect Theme;
Instructor: Laine, James
Description: Since the nineteenth century, scholars have studied the major religions of the world in a comparative way. It is not always clear just what the definition of "religion" is, but it is clear that most people in most times and places have been religious: they think about divine beings, the ultimate purpose of human life and the mystery of being and death. Religious commitments can be a set of taken-for-granted assumptions, or clearly articulated ideological stances about what human beings should do and believe. We will look at both aspects of religion. We cannot hope to cover all religious traditions nor even cover a few in any great depth. The course intended as a reflection on aspects of religion as found in religious traditions of South Asia (India), East Asia (China, Japan), and the West (Judaism, Christianity and Islam). While not neglecting the classical texts, we will use films and a field report as ways of confronting the contemporary practices of religious people today.

RELS 3202 Prophecy in Ancient Israel
3 credit(s); prereq 1001 or 1201 or 3201 RELA 3201 or instr consent credit will not be granted if credit already received for: ReIA 3202, CNES 3202; Meets CLE req of Literature Core;
Instructor: Levinson, Bernard M
Description: This course will trace the development of prophecy in ancient Israel within the larger context of ancient Near Eastern history and culture. We will explore how prophecy evolved from ecstatic groups to lone individuals. We will question the relationship of the prophet to Israelite religious institutions. We will also focus on the social, political, and religious concerns of the prophets, noting their origin in biblical law and covenant ideology. Finally, we will question why prophecy ended in Israel and how it was preserved in transformed form in the apocalyptic literature of Daniel, in the Dead Sea Scrolls, and in the pseudepigraphic literature of the late Second Temple period. The goals of the course are to promote a liberal arts education: to teach exact reading, critical thinking, and thoughtful writing. The First Amendment also applies to this course. It is not personal belief or religious conviction that is at issue in the class. Students should be willing provisionally to suspend what they may have previously learned about the Bible in church, synagogue or mosque. Legally and pedagogically, all classroom discussion and assignments must be secular, intellectual, and academic. Style: 80% Lecture, 20% Discussion;
Grading: 40% mid exam, 30% final exam, 30% reports/papers.
Exam Format: 50% multiple choice; 50% essay for all exams

RELS 3373 Religion and Society in Imperial China
3 credit(s); Credit will not be granted if credit has been received for: ALL 3373; Meets CLE req of Historical Perspective Core;
Instructor: Walther, Ann Beth
Description: This course will examine the varieties of religious experience in imperial China. It will examine religion as lived practices as well as textual traditions. We will look at Buddhism, Daoism, and Confucianism, as well as the relations among them. We will also look briefly at the western missionary enterprise in China, particularly at ways in which the western presence throws certain aspects of Chinese religion into sharp relief. We will pay...
particular attention to the material culture of Chinese religion, through videos, through visits to the Minneapolis Institute of Arts, and through visits to local temples. We will be attentive to the historical development of Chinese religions. The class will be a mixture of lecture and discussion. As much as possible, class activities will focus on a close reading of primary texts.

**Grading:** 25% mid exam, 35% final exam, 20% reports/papers, 20% other evaluation.

**REL 5513 Scripture and Interpretation**

A-F only, 3 credit(s); prereq credit will not be granted if credit already received for: RelA 3513, RelA 5513, JwSt 3513, JwSt 5513; Meets CLE req of Writing Intensive;

**Instructor:** Levinson, Bernard M

**Description:** This seminar investigates the idea of divine revelation and its impact upon religion and literature. It shows how the history of the Bible's creation, transmission and interpretation in Judaism can help us think critically about the role of the idea of revelation in the history of religious traditions. Just what is revelation? What happens when a literary text is accorded the status of revelation? How does the belief that a text is revealed affect the way it is read within the community for which it constitutes revelation? These are the questions we bring to the particular case of Judaism's scriptural canon and the history of its interpretation. It will place particular emphasis upon the reinterpretation and transformation of authoritative texts within the Hebrew Bible even before the closure of the canon. Chronologically, it covers developments from about the 5th century B.C.E. until about the 13th century C.E. This period begins prior to the formation of the present version of the Bible, witnesses its compilation and the origins of Rabbinic Judaism and Christianity, and ends with the solidification of those medieval traditions of biblical commentary which still shape modern Jewish understanding of Scripture. That contemporary literary and legal studies have begun to address the issues of the book of the history of authorship, textual authority, canon transformation, intertextuality, and the nature of interpretation, extends the methodological and theoretical implications of the material studied.

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

**Grading:** 100% reports/papers.

**REL 8190 Comparative Seminar in Religions in Antiquity**

A-F only, 3 credit(s), max credits 6; prereq Grad student in relevant field;

**Instructor:** Nicholson, Oliver

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

**Respiratory Care**

**RC 3102 Respiratory Care Modalities and Equipment II**

A-F only, 4 credit(s); prereq 3101;

**Instructor:** King, Vanessa Lea

**Description:** Students will become competent in the implementation and operation of a range of invasive monitoring devices and life support technology used in care of the critically ill patient. This will include airway management, hemodynamic & respiratory monitoring, and mechanical ventilation for perinatal, pediatric and adult patients. The course will conclude with completion of the American Heart Association's course in advanced cardiac life support (ACLS). Laboratory exercises will allow simulated patient care for a range of scenarios representing cases seen in the emergency room or intensive care units. In cooperation with Mayo School of Health Sciences, Rochester.

**RC 3302 Clinical Practice II**

S-N only, 4 credit(s); prereq 3301, BAS respiratory care major;

**Instructor:** Wattler, Bryan Allan

**Description:** Students continue a series of rotations including 18 different clinical areas at the Mayo Medical Center. 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 expand their competencies in adult as well as perinatal & pediatric critical respiratory care. In cooperation with Mayo School of Health Sciences, Rochester.

**RC 3402 Seminar in Respiratory Care II: Case reports and Fundamentals of Research**

A-F only, 1 credit(s); prereq 3401, BAS RC student;

**Instructor:** Findlay, James Y

**Description:** Students will attend weekly conferences and seminar to discuss cases 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. In cooperation with Mayo School of Health Sciences, Rochester.

**RC 3501 Advanced Cardiopulmonary Respiratory Physiology and Pathophysiology**

A-F only, 3 credit(s); prereq 3201, BAS RC student;

**Instructor:** Ward, Jeffrey J

**Description:** The first half of the course will provide students with a detailed review of the physiology cardiovascular and pulmonary systems. Once the normal function has been mastered, a review of adult, pediatric and perinatal pulmonary and cardiac disorders will be undertaken. Emphasis will be placed on: presenting assessment, laboratory evaluation, major pathology, pathophysiological manifestations and treatment options. Lab will allow observation and measurement of normal and simulated abnormal cardiopulmonary physiology. In cooperation with Mayo School of Health Sciences, Rochester.

**RC 4301 Seminar: Research Project and Publication**

A-F only, 2 credit(s); prereq 3102, BAS respiratory care major;

**Instructor:** STAFF

**Description:** Students will be responsible for preparing a research project for submission. This includes assembling a poster, abstract, or manuscript of original research. Research mentors will be assigned to allow guided independent study. In cooperation with Mayo School of Health Sciences, Rochester.

**RC 4596 Subspecialty Clinical Practicum in Advanced Respiratory Care II**

S-N only, 3 credit(s); prereq 3302, BAS RC student;

**Instructor:** STAFF

**Description:** Students will complete competencies focused in the areas of advanced-level respiratory care including clinical subspecialties and related areas important to the respiratory care practitioner desiring greater scope of practice. Rotations are 8 weeks in length and include 120 hours of directed clinical experience. Rotations are conducted at facilities within the Mayo Health System and institutions affiliated with the University of Minnesota. Two rotations can be completed in one semester. In cooperation with Mayo School of Health Sciences, Rochester.

**RC 4611 Grand Rounds**

A-F only, 2 credit(s); prereq Respiratory care major;

**Instructor:** Plevak, David Joseph

**Description:** This capstone course reviews respiratory clinical and professional issues from a broad spectrum and also allows reflection on caregiver roles in human caring. Presentations cover a wide range of topics that impact allied health practitioners and include global views of national health policy, economics, ethical and legal problems, and challenging clinical cases. Group discussion sessions provide a forum for multidisciplinary review of cases in order to bring larger issues down to individual patient and family experiences.
RUSS 1102 Beginning Russian II
5 credit(s); prereq T101 or equiv;
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 tapes, and are required to participate in each class session. Active control of Russian structure is the principal criterion of evaluation. Style: 30% Lecture. Instructor guided oral exercises.
Grading: 40% final exam, 40% quizzes, 10% class participation, 10% other evaluation. Homework.
Exam Format: Fill in blanks, translation, writing short paragraphs, answering questions, listening comprehension.

RUSS 3002 Intermediate Russian II
5 credit(s); prereq 3001 or instr consent;
Instructor: STAFF
Description: Textbook: "Nachalo" We are continuing the simultaneous development of speaking, listening, reading and writing skills. The course is designed to prepare students for the language proficiency exam (LPE) in Russian. We will carry on conversation based on the material in text, have translation exercises, group activities, guided exercises to reinforce the grammar and vocabulary. There will be a quiz after each chapter, and a short quiz after the first 2 parts of the chapter (this will help you to better solidify the learned material). We will also be reading some short stories, will answer questions, and will discuss them in class. You will write a short essay on each story read.
Style: 20% Lecture, 50% Discussion. guided exercises, interaction, conversation
Grading: 40% final exam, 40% quizzes, 10% class participation, 10% other evaluation. homework

RUSS 3102 Advanced Russian II
4 credit(s); prereq 3101 or instr consent;
Instructor: STAFF
Description: Text: "V Puti - Russian Grammar in Context". Attention will be given to developing reading comprehension, conversational competence, grammatical accuracy, and cultural sophistication. We'll discuss grammar and word study. We will read stories and other texts, and will paraphrase them, answer the questions and carry on discussions in class. You will write essays on the material we have read. Regular attendance is very important for your progress. Class participation and homework constitutes 20% of your grade. If you miss a class, it is your responsibility to find out what was covered, whether any changes were announced, etc. You can make up for a test, if you missed it due to illness or emergency. You are encouraged to take advantage of the instructor's office hours to discuss the material or any problems. During this semester each student will give a 10 minute informal oral presentation on an important or interesting event which happened around the world during the last week. The purpose is to give you an opportunity to do some individual research, be creative and to practice your oral speech. There will be 3 compositions, 3 double-spaced pages each. Correct grammar, spelling, sentence structure, content (clear, logical thought). There will be a quiz after each chapter and a final written examination.
Style: 20% Lecture, 20% Discussion. Russian language interaction
Grading: 20% mid exam, 30% final exam, 10% reports/papers, 20% quizzes, 10% in-class presentation, 10% class participation.

RUSS 3102 Honors Advanced Russian II
4 credit(s); Credit will not be granted if credit has been received for RUSS 3102; Honors major, instr consent;
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 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 before undertaking to write a paper in that area. The language of the paper should be English. The paper should, however, present evidence of appropriate use of Russian-language sources.

RUSS 3407 Stories and Plays of Anton Chekhov in Translation
3 credit(s); Credit will not be granted if credit has been received for: RUSS 5407;
Instructor: Polakiewicz, Leonard Anthony
Description: This course is devoted to the study of literary devices, ideas and themes in 23 stories and 4 major plays by Anton Chekhov—one of the world's greatest modern writers. Although the intrinsic approach is used in analyzing Chekhov's works which focuses mainly on their aesthetic merits, the role of extrinsic factors such as biography, psychology, history, etc., is also studied. This course should be an enriching experience for all students and especially those interested in world literature and drama, Russian and East-Central European Studies, English and Theatre Arts.
Style: 60% Lecture, 40% Discussion.
Grading: 20% mid exam, 30% final exam, 30% reports/papers, 20% class participation.
Exam Format: Essay

RUSS 3411 Dostoevsky in Translation
3 credit(s); Credit will not be granted if credit has been received for: RUSS 5411;
Instructor: John Gary R
Description: This course provides a survey of the literary career...
of Fyodor Mikhailovich Dostoevsky (1821-1881), one of the greatest of the nineteenth-century Russian writers. A portion of the course will be devoted to lectures concerning Dostoevsky’s biography and literary career. Most of the course, however, will be devoted to the detailed discussion of the required readings. These will include Poor Folk, Notes from Underground, Crime and Punishment, The Possessed, and The Brothers Karamazov. There will be two examinations (mid-term and final) of the essay type. Students enrolled for Russ 5411 must write a 12-15 page research paper on a subject mutually agreed to by themselves and the instructor; students enrolled in Russ 3411 are not obliged to write such a paper.

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

**Grading:** 25% mid exam, 50% final exam, 25% class participation.

**Exam Format:** essay

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**RUSS 3422 Literature: Tolstoy to the Present in Translation**

3 credit(s); Credit will not be granted if credit has been received for: RUSS 5422; Meets CLE req of Literature Core;

**Instructor:** Walter, Ronald F.

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

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**RUSS 3407 Stories and Plays of Anton Chekhov in Translation**

3 credit(s); Credit will not be granted if credit has been received for: RUSS 3407;

**Instructor:** Polakiewicz, Leonard Anthony

**Description:** This course is devoted to the study of literary devices, ideas and themes in 23 stories and 4 major plays by Anton Chekhov—one of the world’s greatest modern writers. Although the intrinsic approach is used in analyzing Chekhov’s works which focuses mainly on their aesthetic merits, the role of extrinsic factors such as biography, psychology, history, etc., is also studied. This course should be an enriching experience for all students and especially those interested in world literature and drama, Russian and East-Central European Studies, English and Theatre Arts.

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

**Grading:** 20% mid exam, 30% final exam, 30% reports/papers, 20% class participation.

**Exam Format:** Essay

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**RUSS 5411 Dostoevsky in Translation**

3 credit(s); Credit will not be granted if credit has been received for: RUSS 5411;

**Instructor:** Jahn, Gary R

**Description:** This course provides a survey of the literary career of Fyodor Mikhailovich Dostoevsky (1821-1881), one of the greatest of the nineteenth-century Russian writers. A portion of the course will be devoted to lectures concerning Dostoevsky’s biography and literary career. Most of the course, however, will be devoted to the detailed discussion of the required readings. These will include Poor Folk, Notes from Underground, Crime and Punishment, The Possessed, and The Brothers Karamazov. There will be two examinations (mid-term and final) of the essay type. Students enrolled for Russ 5411 must write a 12-15 page research paper on a subject mutually agreed to by themselves and the instructor; students enrolled in Russ 3411 are not obliged to write such a paper.

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

**Grading:** 25% mid exam, 50% final exam, 25% class participation.

**Exam Format:** essay

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**RUSS 5422 Literature: Tolstoy to the Present in Translation**

3 credit(s); Credit will not be granted if credit has been received for: RUSS 3422;

**Instructor:** Walter, Ronald F.

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

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**RUSS 3993 Directed Studies**

1-4 credit(s), max credits 16, 4 repeats 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 advanced undergraduate and graduate 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 the final year of completing their Russian 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.

**Style:** guided research and discussion.

**Grading:** 100% other evaluation. student’s work evaluated on the basis of variable course criteria

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**SCAN 3503 Scandinavian Folklore**

3 credit(s); Meets CLE req of Literature Core;

**Instructor:** Houe, Poul

**Description:** The course examines major works of Scandinavian literature from the Middle Ages to the present: An Icelandic saga (13th C); tales by Hans Christian Andersen and a philosophical novel by Kierkegaard (early to mid 19th C); plays by Ibsen and Strindberg and a novel by Hamsun (late 19th C); poems by Edith Sodergran (early 20th C); and recent international bestsellers by Scandinavian masters and newcomers. Danish, Norwegian, Swedish, Finland-Swedish, and Icelandic literature are represented almost equally, and while the emphasis is on literature after the modern breakthrough, the historical dimension will not be neglected, and all texts will be discussed in their social, cultural, and artistic context. A guiding hypothesis throughout the course will be that for readers and writers to find their own stories, they must tell and retell the stories of the world. During the course we will explore how this has been done by great Scandinavian writers.

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

**Grading:** 30% final exam, 50% reports/papers, 20% class participation.

**Exam Format:** Essay/take-home exam

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**SCAN 3613 Children’s Literature in Scandinavia**

3 credit(s);

**Instructor:** Houe, Poul

**Description:** This undergraduate course explores Scandinavian children’s literature in English translation on the background of children’s culture within Scandinavian culture at large. The
history of the subject dates back to the Enlightenment, when didactic and moralistic writings were aimed at socializing children's emotions and desires into acceptable bourgeois family norms. The Romantic era of the 19th century put another, more emotional and imaginative mode of writing center stage. In the fairy tales and stories told for children (and adults) by Hans Christian Andersen, the Danish father of the Scandinavian art fairy tale, children's lives are no longer inferior to the middle class norms of grown-ups. Rather, their oral culture is preferred to the rigid cultural standards of their elders, and valued as a source of protest and dissent. This move toward individualism and independence-furthered by an increasing literacy and by the modern market place for cultural products later paved the way for such beloved 20th century figures as Pippi Longstocking in the books by Swedish author Astrid Lindgren, and for the elusive moomins in Finland-Swedish author and artist Tove Jansson's work. At times, social and political agendas have dispensed with fantasy in favor of realism. But on the whole the two have increasingly interacted with one another since Scandinavian children's literature entered its post WWII golden era. One major children's book will be discussed in this context every week.

\[\text{Style: 50\% Lecture, 50\% Discussion.}\]

\[\text{Grading: 30\% final exam, 50\% reports/papers, 20\% class participation.}\]

\[\text{Exam Format: take home/essay exam}\]

**SCAN 3993 Directed Studies**

1-4 credit(s), max credits 12, 12 repeats allowed; prereq instr consent, dept consent, college consent;

\[\text{Instructor: STAFF}\]

**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 4602 Fiction and Film**

3 credit(s);

\[\text{Instructor: Zagar, Monika}\]

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

**SCAN 5501 Scandinavian Mythology**

3 credit(s);

\[\text{Instructor: Grimstad, Kaaren E}\]

**Description:** Study of Scandinavian mythology based on primary sources represented by Saxo Grammaticus, Snorri Sturluson's Edda and Ynglinga Saga, and the Poetic Edda. Myths are analyzed using contemporary critical approaches. All readings in translation. The target audience is advanced undergraduates and graduates, both majors and non-majors.

\[\text{Style: 50\% Lecture, 50\% Discussion.}\]

\[\text{Grading: 75\% reports/papers, 25\% class participation.}\]

**SCAN 5710 Topics in Old Norse Literature**

3 credit(s), max credits 9, 3 repeats allowed; prereq 5701 or equiv;

\[\text{Instructor: Grimstad, Kaaren E}\]

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

**SCAN 5993 Directed Studies**

1-4 credit(s), max credits 12, 12 repeats allowed; prereq instr consent, dept consent, college consent;

\[\text{Instructor: STAFF}\]

**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.

**SW 1905 Freshman Seminar: High School: Moments, Memories & Meanings**

1-3 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 so 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 will both have a better grasp of the issues, questions, responses, and answers.

\[\text{Style: 30\% Lecture, 10\% Film/Video, 40\% Discussion, 20\% Field Visits.}\]

**SW 2501W Introduction to Social Justice**

A-F only, 4 credit(s); Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive;

**Instructor: STAFF**

**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 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 especially 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 assigned.

**Style:** 25% Discussion, 25% Small Group Activities, 25% Student Presentation, 25% Service Learning.

**Grading:** 15% mid exam, 15% final exam, 20% special projects, 20% reflection paper, 15% class participation, 15% Service Learning.

**SW 3301 GLBT Social Movements**

**A-F only, 3 credit(s); Credit will not be granted if credit has been received for: GLBT 3301;**

**Instructor:** Phibbs, Anne Elizabeth

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

**SW 3501 Theories and Practices of Social Change Organizing**

**A-F only, 4 credit(s); prereq 2501W; Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core;**

**Instructor:** Albrecht, Lisa D

**Description:** In this course, we will look at various 20th and 21st century social change movements to study how everyday people work for social change. We will also look at how various activists work for social change, and finally we will engage in 30 hours of community-based education (service learning) where we will volunteer in social justice organizations locally. 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.

**Style:** 25% Discussion, 25% Small Group Activities, 25% Student Presentation, 15% Service Learning.

**Grading:** 35% special projects, 20% reflection paper, 30% class participation, 15% other evaluation. Other Evaluation: service learning.

**SW 3701 Introduction to Child Maltreatment and Family Violence**

**3 credit(s); Meets CLE req of Cultural Diversity Theme;**

**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 perspective. 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% Demonstration, 10% Field Trips, 20% Guest Speakers.

**Grading:** 15% mid exam, 20% final exam, 10% special projects, 20% written homework, 15% reflection paper, 25% class participation. Written Homework—online assignments.

**SW 3702 Child Maltreatment and Family Violence: Intervention and Prevention**

**3 credit(s); prereq 3701; Meets CLE req of Social Science Core;**

**Instructor:** STAFF

**Description:** This interdisciplinary liberal arts course is a comprehensive study of child maltreatment and family violence today. It is intended to offer the undergraduate student a wide breadth of understanding intervention and prevention strategies for child maltreatment and family violence. It will 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:** 25% 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); Meets CLE req of International Perspect Theme;**

**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 4501 Senior Seminar in Social Justice**

**A-F only, 4 credit(s); prereq 2501, 3501;**

**Instructor:** Albrecht, Lisa D

**Description:** This course is the last of three required courses that are part of the interdisciplinary, cross-college undergraduate minor in Social Justice. This seminar brings together the theories and practices of social justice that you have explored as part of your required minor courses and your elective courses, and your community based learning experiences. We will continue to engage in dialogue about the many meanings of social justice, and we will also focus two issues of contemporary importance: immigration and terrorism. The key work of this seminar will be your own self-designed final social justice portfolio. It will
represent the culmination of your experiences as a student in the social justice minor program. Each student will complete a social justice portfolio, and present their work to the seminar as well as the general public. As we have done in each of the required courses, we will continue to ask ourselves questions about the meanings of citizenship and democracy in the U.S., particularly as they relate to social justice. We will also continue to do community based learning (service learning) in a social justice organization. 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 fail behind; the sequence of readings and activities are meant to be done in the order I’ve assigned them.

**Style:** 25% Discussion, 30% Small Group Activities, 25% Student Presentation, 5% Guest Speakers, 15% Service Learning.

**Grading:** 15% reports/papers, 55% special projects, 15% class participation, 15% other evaluation.

**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 8020 Field Practicum II**
- S-N only, 1-6 credit(s), max credits 6; prereq 8010;
- 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: Maxwell, Steve
- **Description:** Student may contact the instructor or department for information.

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### Social and Administrative Pharmacy

**7-155 Weaver-Densford Hall**

**SAPH 8100 Seminar**
- A-F only, 1 credit(s), max credits 8, 8 repeats allowed;
- prereq Grad SAPH major or instr consent;
- Instructor: Schommer, Jon C
- **Description:** Student may contact the instructor or department for information.

**SAPH 8173 Principles and Methods of Implementing Research**
- 3 credit(s); prereq Two grad stat courses; Credit will not be granted if credit has been received for: NURS 8173;
- Instructor: Gross, Cynthia R
- **Description:** Student may contact the instructor or department for information.

**SAPH 8200 Research Problems**
- 1-8 credit(s), max credits 16, 16 repeats allowed; prereq Grad SAPH major or instr consent;
- Instructor: Skaar, Debra Jane
- **Description:** Student may contact the instructor or department for information.

**SAPH 8420 Social and Behavioral Aspects of Pharmacy Practice**
- A-F only, 3 credit(s); prereq Grad SAPH major or instr consent;
- Instructor: Worley, Marcia Marie
- **Description:** Student may contact the instructor or department for information.

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### Sociology

**909 Social Sciences Tower**

**SOG 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 Cultural Diversity Theme; meets CLE req of Social Science Core;
- Instructor: Swartz, Teresa Toguchi
- **Description:** This course is designed to introduce you to the study of society and what Mills calls the “sociological imagination:” a way of viewing the events, relationships and social phenomena that shape our individual lives and much of our collective experience. Through the course we will examine some of the central concepts and problems that have preoccupied both classical and contemporary sociologists, and gain a sense of how the sociological imagination can illuminate the social forces that have a concrete impact on our everyday lives. We will first explore the creation and maintenance of the social order as well as the social processes by which people develop a sense of self and negotiate meanings in everyday social interactions. We then take a look at social structure, social institutions and social stratification. Finally, we will explore how, why, and when social life changes. Throughout the course you will be asked to consider the ways in which society affects your life, and how you, in turn, affect society. Class time will be a mix of lecture, discussion, multimedia, small group work and in-class exercises. The course is targeted to undergraduate majors and non-majors.

**Style:** 50% Lecture, 20% Discussion. videos, small group work, in-class activities, other

**Grading:** 40% mid exam, 40% reports/papers, 20% other evaluation. class participation/activities/quizzes/labwork

**Exam Format:** multiple choice, short answer, short essay

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This information is accurate as of 6/9/2008 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: Abdi, Cawo
Description: This course introduces to the student pivotal questions that underpin classical and contemporary sociological perspectives. Issues on how society is possible and how social order is maintained are core to an understanding of ourselves as both agents and objects that shape and are shaped by our membership in society. We will examine this close relationship between the individual, society, and social structures to better appreciate the dynamics of social and power relations in our everyday life. The course explores diverse sociological theories purporting to explain current and past socio-political and economic structures. It also centralizes the importance of change and the forces that drive or/hinder change.
Style: 50% Lecture, 30% Film/Video, 20% Discussion.
Grading: 20% mid exam, 20% final exam, 20% quizzes, 10% attendance, 20% reflection paper, 10% laboratory evaluation.
Exam Format: Multiple choice questions, True/False

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 Cultural Diversity Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive;
Instructor: Swartz, Teresa Toguchi
Description: This course is designed to introduce you to the study of society and what Mills calls the “sociological imagination”: a way of viewing the events, relationships and social phenomena that shape our individual lives and much of our collective experience. Throughout the course we will examine some of the central concepts and problems that have preoccupied both classical and contemporary sociologists, and gain a sense of how the sociological imagination can illuminate the social forces that have a concrete impact on our everyday lives. We will first explore the creation and maintenance of the social order as well as the social processes by which people develop a sense of self and negotiate meanings in everyday social interactions. We then take a look at social structure, social institutions and social stratification. Finally, we will explore how, why, and when social life changes. Throughout the course you will be asked to consider the ways in which society affects your life, and how you, in turn, affect society. Class time will be a mix of lecture, discussion, multimedia, small group work and in-class exercises. This honors section provides an opportunity for more intensive discussion and for hands-on learning with original field research projects.
Style: 40% Lecture, 30% Discussion. videos, in-class exercises, student presentations, field research projects
Grading: 40% mid exam, 40% reports/papers, 20% other evaluation. participation/activities/presentations
Exam Format: multiple choice, short answer, essay

SOC 3003 Social Problems
A-F only, 3 credit(s); prereq 1001 or instr consent
Instructor: Logan, End Lynette
Description: How do we decide that something is a social problem, and what do we do about it? How do race, class and gender impact our understandings of social problems in the contemporary United States? Who is primarily responsible for addressing social problems—individuals, the government, churches, schools, or other social institutions? In this class, we will examine some of the major social problems facing the United States today. Issues that may be examined include the deinstitutionalization of marriage & the childcare crisis; global climate change & environmental racism, illegal immigration, terrorism & torture, chronic poverty & corporate welfare, genetic engineering & universal healthcare, violence & misogyny in the media, and race & gender discrimination. Throughout the course, we will evaluate solutions to these problems by drawing upon insights from our nation’s past, as well as from other societies across the globe. In order to illustrate the issues to be discussed, we will watch segments from a number of recent documentary films such as An Inconvenient Truth, Sicko, Ghosts of Abu Ghirab, and The Boys of Baraka.
Style: 30% Lecture, 25% Film/Video, 45% Discussion.
Grading: 15% mid exam, 15% final exam, 35% reports/papers, 15% in-class presentation, 20% class participation.
Exam Format: essay, as well as multiple choice and true/false questions

SOC 3090 Topics in Sociology: Science & Politics of Global Warming
3 credit(s), max credits 6; prereq [1001, [soph or above]] or instr consent ; soc majors must register A-F; cr will not be granted if cr has been received for same topics title;
Instructor: Broadbert, Jeffrey Praed
Description: Student may contact the instructor or department for information.

SOC 3090 Topics in Sociology
3 credit(s), max credits 6; prereq [1001, [soph or above]] or instr consent ; soc majors must register A-F; cr will not be granted if cr has been received for same topics title;
Instructor: Goldman, Michael R
Description: Student may contact the instructor or department for information.

SOC 3090 Topics in Sociology: Gender & the Family in the Islamic World
3 credit(s), max credits 6; prereq [1001, [soph or above]] or instr consent ; soc majors must register A-F; cr will not be granted if cr has been received for same topics title;
Instructor: Abdi, Cawo
Description: Student may contact the instructor or department for information.

SOC 3101 Introduction to the American Criminal Justice System
A-F only, 3 credit(s); prereq credit will not be granted if credit has been received for Soc 3111; Meets CLE req of Citizenship/Publi Ethics Theme; meets CLE req of Social Science Core;
Instructor: Schoeff, Shelly Suzanne Whalen
Description: Student may contact the instructor or department for information.

SOC 3101 Introduction to the American Criminal Justice System
A-F only, 3 credit(s); prereq credit will not be granted if credit has been received for Soc 3111; Meets CLE req of Citizenship/Publi Ethics Theme; meets CLE req of Social Science Core;
Instructor: Samaha, Joel B
Description: Overview and analysis of the United States criminal justice system. The course stresses three themes: 1. the balance between the government’s power to control crime and the rights of individuals; 2. the appropriate decision making criteria (seriousness of offense, criminal history of offenders, and strength of evidence) and the illegal criteria (race, ethnicity) that can infect decision-making in the major crime control agencies (police, courts, and corrections); 3. the evaluation of criminal justice policies and practices (Do they work? Are they legal? Are they fair? Are they smart?). The course describes, analyzes, and provides information and arguments to stimulate you to think critically about crime control in a constitutional democracy. Topics include crime, trends in crime, criminals and their families; victims and their families; crime control in a constitutional democracy; criminal law; police, police roles and culture, police strategies, and police and the Constitution; charging suspects; prosecuting, defending, and sentencing defendants; probation and incarceration; and prisoner reentry into society (“Eventually, they all come home.”) No prior knowledge of the criminal justice system is required.
Style: 60% Lecture, 20% Discussion. documentary videos of police, courts, corrections, and terrorism
Grading: 10% class participation, 90% other evaluation. 3 NONCUMULATIVE multiple choice exams + a NONCUMULATIVE final%
Exam Format: multiple choice

SOC 3102 Introduction to Criminal Behavior and Social Control
3 credit(s); prereq Soc majors must register A-F credit will not be granted if credit has been received for Soc 3111 Soc
Instructor: Logan, End Lynette
Description: This course introduces to the student pivotal questions that underpin classical and contemporary sociological perspectives. Issues on how society is possible and how social order is maintained are core to an understanding of ourselves as both agents and objects that shape and are shaped by our membership in society. We will examine this close relationship between the individual, society, and social structures to better appreciate the dynamics of social and power relations in our everyday life. The course explores diverse sociological theories purporting to explain current and past socio-political and economic structures. It also centralizes the importance of change and the forces that drive or/hinder change.
Style: 50% Lecture, 30% Film/Video, 20% Discussion.
Grading: 20% mid exam, 20% final exam, 20% quizzes, 10% attendance, 20% reflection paper, 10% laboratory evaluation.
Exam Format: Multiple choice questions, True/False

This information is accurate as of 6/9/2008 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.
majors must register A-F;
Instructor: Wozniak, Jesse S
Description: Student may contact the instructor or department for information.

SOC 3251W Sociological Perspectives on Race, Class, and Gender
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: AFRO 3251W; Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; Instructor: Alainz, Ryan Chelsea
Description: Student may contact the instructor or department for information.

SOC 3322W Social Movements, Protests, and Change
3 credit(s); prereq 1001 or instr consent; soc majors/minors must register A-F; Meets CLE req of Citizenship/ publ Ethics Theme; meets CLE req of Writing Intensive; Instructor: Broadbent, Jeffrey Praed
Description: Student may contact the instructor or department for information.

SOC 3511 World Population Problems
3 credit(s); prereq 1001 or instr consent; Meets CLE req of International Perspect Theme; Instructor: Meier, Ann
Description: This course explores population dynamics in global perspective. Students will learn major population theories and measures. We will closely examine the ways in which people enter and leave populations -- by birth, death, or migration. We will explore societal differences in these phenomena and investigate their causes and consequences. In particular, we will explore differences in the population situations in highly developed and less developed nations, and differences between subgroups within societies. Within-country differences in population processes exist along gender, race, and social class lines. Key population policies will be discussed.
Style: 60% Lecture, 40% Discussion.
Exam Format: multiple choice, short answer, essay

SOC 3613W Food, Culture, and Society
A-F only, 3 credit(s); Meets CLE req of Writing Intensive; Instructor: Schurman, Rachel
Description: Student may contact the instructor or department for information.

SOC 3701 Social Theory
A-F only, 4 credit(s); prereq 1001 or instr consent; Instructor: Gertels, Joseph Howard
Description: Student may contact the instructor or department for information.

SOC 3701 Social Theory
A-F only, 4 credit(s); prereq 1001 or instr consent; Instructor: Hull, Kathleen E
Description: This course provides an introductory overview of major social theories ranging from the foundational sociological theories of Marx, Weber and Durkheim to current theories of postmodernism and globalization. We will examine a range of theories with particular attention to their treatments of core sociological questions and concerns, including: What holds human societies together? How do societies reproduce themselves? What are the key sources of social conflict, and how are they resolved or contained? What are the significant features of modernity, and what are the implications of modernity for social life? How are social identities created, sustained or transformed, and to what effect? Where is society headed in the future? The goals of the course are to (1) deepen students’ understanding of the significance of such questions and to provide a preliminary survey of theories that have tackled these questions from the late 19th century to the present. For present and future sociology majors, the course provides an indispensable background for subsequent work in the discipline. For all others, it provides an invitation to think about some of the most vital questions that confront us all as reflective and self-aware members of our communities and our world. The course design is premised on the idea that the best way to learn and understand social theory is by seeing its connection to contemporary issues and concerns. Therefore, the primary theory readings in this course are paired with writings that illustrate the relevance of these theories to contemporary concerns or that directly apply the theories to current issues and questions.
Style: 60% Lecture, 10% Film/Video, 20% Discussion, 10% Small Group Activities.
Grading: 35% mid exam, 35% final exam, 30% quizzes.
Exam Format: multiple choice, short answer and essay

SOC 3711 Principles of Social Organization
A-F only, 3 credit(s); prereq 1001 or equiv; Instructor: Bian, Yanjie
Description: Student may contact the instructor or department for information.

SOC 3801 Sociological Research Methods
4 credit(s); prereq [1001 or 1011V] or instr consent, soc majors must register A-F; Instructor: Warren, John R
Description: Student may contact the instructor or department for information.

SOC 3811 Basic Social Statistics
4 credit(s); prereq GC 731 or intermediate algebra or instr consent; Meets CLE req of Mathematical Thinking Core; 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 calculator for assignments and exams.
Style: 65% Lecture, 35% Laboratory.
Grading: 70% mid exam, 30% problem solving.
Exam Format: multiple choice, computational problems

SOC 3811 Basic Social Statistics
4 credit(s); prereq GC 731 or intermediate algebra or instr consent; Meets CLE req of Mathematical Thinking Core; Instructor: Knoke, David H
Description: This is a social statistics course for undergraduate sociology majors. It emphasizes describing data and testing hypotheses. Lectures expose students to the theoretical bases of statistical methods and how to use them in social research. Laboratory sessions teach computing skills and data manipulation techniques. Test problems and lab assignments help students to gain knowledge of basic descriptive and inferential statistics, including frequency distributions, means tests, correlation and regression. Many examples are drawn from diverse sociological topics and illustrated with national survey data.
Style: 67% Lecture, 33% Laboratory.
Grading: 25% laboratory evaluation, 75% other evaluation. Three exams during semester
Exam Format: Computation of statistics problems

SOC 4101W Sociology of Law
A-F only, 3 credit(s); prereq 1001 or 3101 or 3102 or 3111 or instr consent; 3701 recommended; Meets CLE req of Writing Intensive; Instructor: Savelberg, Joachim J
Description: COURSE CONTENT: Law and society are closely intertwined. The sociological analysis of society and its parts, e.g. polity, economy, organizations, and community, depends on

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the understanding of their legal environment. Law, on the other hand, cannot be understood without the social environment, the political economy, the communities, the organizations, and the decision making processes within and through which it functions. These concerns of the sociology of law will be central throughout this class. This class discusses specifically three distinct traditions in the sociology of law: I. evolutionary theories of law (e.g., Durkheim), II. conflict approaches (e.g., Marx), and III. approaches that focus on the relationship between law and the state (e.g., Weber). We further consider IV. law and issues of conflict resolution, V. the problem of law in the activist state and VI. the use of law to promote social change, for cases such as voting rights, school desegregation and equal employment opportunities. We also address VII. the internationalization of law. We finally VIII. learn about the legal profession. TARGET AUDIENCE: The primary audiences are sociology majors with a special interest in law and pre-law students from other major fields. The course may also be taken by law and graduate students (requirements will be more demanding for these). Style: 60% Lecture, 25% Discussion. small group activities Grading: 40% mid exam, 30% final exam, 30% reports/papers. Exam Format: multiple choice and short answer questions

SOC 4135 Sociology of White-Collar Crime 3 credit(s); prereq 3101 or 3102 or 3111 or instr consent ; Soc majors A-F only; Instructor: Barrows, Julie Sue Description: Student may contact the instructor or department for information.

SOC 4142 Juvenile Justice and Law 3 credit(s); prereq [3101 or 3102 or 3111 or instr consent], jr or sr or grad student; grad students may register S/N; Instructor: Page, Joshua A Description: Student may contact the instructor or department for information.

SOC 4149 Killing 3 credit(s); prereq Sr or grad; grad students only may enroll S/N; Instructor: Malmquist, Carl P Description: Sociological, legal, and psychological aspects of diverse types of killing. The topic of "normal" killings is contrasted with various pathological types. Subtopics include: mentally disturbed killings, sexual killings, killings within families, gang killings, and terrorist killings.

SOC 4162 Criminal Procedure 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: Course Content: Balance between government power to enforce criminal laws and individuals' right to be left alone by the government. Topics include: police power to stop and frisk, arrest, search, interrogate, and identify suspects; right to a lawyer; remedies for constitutional violations. Teaching methods: Read and discuss U.S. Supreme Court and other cases. Textbooks and other reading: Samaha, Criminal Procedure 7th edition (earlier editions won't do). Audience: Upper division undergraduates in all departments and colleges; some graduate and professional students. Style: 15% Lecture, 85% Discussion. Grading: 90% other evaluation. 10% non cumulative short answer and essay exams; 10% participation in course surveys Exam Format: 60% identification, definition (no multiple choice); 40% case analysis essay

SOC 4246 Sociology of Health and Illness A-F only; treadmill; prereq One sociology course or instr consent ; Meets CLE req of Cultural Diversity Theme; Instructor: Hernandez, Elaine M Description: Student may contact the instructor or department for information.

SOC 4966W Major-Project Seminar A-F only, 4 credit(s); prereq 3701, 3801, 3811, 12 cr upper div sociology, dept consent; Meets CLE req of Writing Intensive; Instructor: Hartmann-Douglas Description: This section is a new, capstone version of the senior projects course that is designed to provide students with an opportunity to think about how the knowledge, skills, and insights of the sociology major can be used in lives and careers outside of the University. The course will begin by posing two questions (1) what is sociology? and (2) what is the role of sociological knowledge, research, and thought in contemporary American public life. It will proceed to consider different types of sociology and their various contributions. Instead of traditional research projects, students will be encouraged to conduct projects that are more engaged and applied in nature. Specifically, students will have the option of doing service learning (field papers or actual projects with participating organizations) or writing an extended reflective essay that utilizes the tools and theories learned across the major. In either case the final project will build on the values of critical thinking, effective communication, diversity, and social responsibility that are cultivated in sociology. Style: 33% Lecture, 33% Discussion. paper development and one on one meetings with instructors Grading: 60% reports/papers, 20% class participation, 20% other evaluation. paper proposals, outlines and drafts

SOC 4966W Major-Project Seminar A-F only, 4 credit(s); prereq 3701, 3801, 3811, 12 cr upper div sociology, dept consent; Meets CLE req of Writing Intensive; Instructor: Mortimer, Jeylan T Description: The purpose of this course is to assist and encourage 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. Through a series of assignments, students work through the choice of their topics, the formulation of a researchable question, selection of methods and data, written and oral presentation of findings, and drawing conclusions. In addition to the final senior paper, there are five written assignments: (1) topic; (2) questions and methods; (3) first draft of literature review and methods section; (4) first draft of entire paper, including findings and conclusions); and written comments on one other student's draft paper and oral presentation. Class discussions focus on the stages of a research-writing project, the ethics of research on human subjects, challenges of writing, and the various issues and problems that the students in the class encounter as their work progresses. Readings provide guidelines about how to ask sociological questions, collect and interpret data, and clearly communicate research findings. Since the course centers on students' projects, there is very little lecture. Style: 10% Lecture, 70% Discussion. Students present their papers in class. Grading: 65% reports/papers, 10% in-class presentation, 25% problem solving. Exam Format: no exam

SOC 8801 Sociological Research Methods A-F only, 4 credit(s); prereq Grad soc major or instr consent; Instructor: Macmillan, Ian Ross Description: Student may contact the instructor or department for information.

Software Engineering 510 WBOB

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SENG 5131 Network Programming: Distributed Objects  
A-F only, 3 credit(s), max credits 23, 1 repeat allowed;  
prereq Grad SEng major;  
Instructor: Calvo, Michael Joseph  
Description: Student may contact the instructor or department for information.

SENG 5199 Topics in Software Engineering  
A-F only, 2-3 credit(s), max credits 6; prereq SEng grad student;  
Instructor: Schutta, Nathaniel T  
Description: Student may contact the instructor or department for information.

SENG 5708 Advanced Database Management  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
prereq Grad SEng major;  
Instructor: Srivastava, Jaideep  
Description: Student may contact the instructor or department for information.

SENG 5802 Software Engineering II: Advanced Software Engineering  
A-F only, 3 credit(s); prereq Grad SEng major;  
Instructor: Collins, John  
Description: Student may contact the instructor or department for information.

SENG 5811 Software Testing and Verification  
A-F only, 2 credit(s); prereq 5801, grad SEng major;  
Instructor: Bitzenhofer, Neil A  
Description: Student may contact the instructor or department for information.

SENG 5831 Software Development for Real-Time Systems  
A-F only, 2-3 credit(s), max credits 3, 1 repeat allowed;  
prereq Grad SEng major;  
Instructor: Vestal, Steve  
Description: Student may contact the instructor or department for information.

SENG 5841 Model-based Development  
A-F only, 3 credit(s); prereq Grad SEng major;  
Instructor: Heimdahl, Mats Per  
Description: Student may contact the instructor or department for information.

SENG 5852 Quality Assurance and Process Improvement  
A-F only, 3 credit(s); prereq Grad SEng major;  
Instructor: Hedger, Richard John  
Description: Student may contact the instructor or department for information.

SENG 5900 Directed Study  
1-3 credit(s), max credits 3, 1 repeat allowed;  
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, Richard John  
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.

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

SENG 8891 Independent Project  
2-6 credit(s), max credits 12;  
Instructor: Freese, Jesse David  
Description: Student may contact the instructor or department for information.

SENG 8891 Independent Project  
2-6 credit(s), max credits 12;  
Instructor: Kan, Stephen Hauwah  
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 Per  
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: 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: Freese, Jesse David  
Description: Student may contact the instructor or department for information.

SENG 8891 Independent Project  
2-6 credit(s), max credits 12;  
Instructor: Hedger, Richard John  
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 2125 Basic Soil Science

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SOIL 3416 Plant Nutrients in the Environment
3 credit(s); prereq 2125;
Instructor: Bierman, Peter Mason
Description: Student may contact the instructor or department for information.

SOIL 4093 Directed Study
1-7 credit(s), max credits 20, 20 repeats 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 depends on the credits.
Style: Independent research

SOIL 4094 Directed Research
1-7 credit(s), max credits 7, 1 repeat 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 4111 Introduction to Precision Agriculture
A-F only, 3 credit(s); prereq Basic sciences, statistics, soil, agronomy;
Instructor: Mulla, D.J
Description: Student may contact the instructor or department for information.

SOIL 4505 Soil Geography: Soil Variability on Planet Earth
2 credit(s); prereq 1125 or 2125 or equiv;
Instructor: Cooper, Terence H
Description: Student may contact the instructor or department for information.

SOIL 5111 Practicum Internship in Precision Agriculture
S-N only, 2-5 credit(s), max credits 5, 1 repeat allowed;
Instructor: Mulla, D.J
Description: Student may contact the instructor or department for information.

SOIL 5311 Soil Chemistry and Mineralogy
3 credit(s); prereq [Chem 1022 or equiv], Phys 1102, grad or instr consent;
Instructor: Bloom, Paul Ronald
Description: Structural chemistry, and origin and identification of crystalline soil clay minerals. Structure of soil organic matter. Chemical processes in soil; solubility, adsorption/desorption, ion exchange, oxidation/reduction, acidity, and alkalinity. Solution of problems related to environmental degradation, plant nutrition, and soil genesis.
Style: 80% Lecture, 20% Discussion.

SOIL 5515 Soil Genesis and Landscape Relations
A-F only, 3 credit(s); prereq 2125 or instr consent;
Instructor: Nater, Ed
Description: Soil 5515 is an advanced undergraduate/graduate level course covering concepts of soil genesis and development, soil classification, and the distribution of soils across the landscape. The first part of the course uses conceptual and mathematical models to describe the processes and environmental factors affecting the development of soils, their horizons, and their properties. Particular emphasis is placed on development over time; paleosols are used to illustrate some of these points. The second part of the course consists of a brief introduction to the U.S. Soil Taxonomic System. Characteristic properties of individual soil orders are used to further illustrate soil development processes and the geographic distribution of soils. The final portion consists of an advanced treatment of soil--landscape relations and the processes and factors that lead to the distributions observed. This section utilizes GIS and soil landscape modeling to develop these concepts. An introduction to national soils databases and interpretations will be provided. Soil surveys are introduced, both from the viewpoint of making soil maps and their use and interpretation. Three weekend field trips are required: the first is a one-day trip to Cedar Creek Natural History Area; the second is a one-day trip to southeastern Mn.; and the third is a two-day trip through north central and northwestern Mn.
Style: 80% Lecture. Field trips
Grading: 20% mid exam, 20% final exam, 30% reports/papers, 30% special projects.
Exam Format: Essay

SOIL 8110 Colloquium in Soil Science
S-N only, 1-3 credit(s), max credits 6, 6 repeats allowed;
Instructor: Allan, Deborah L
Description: Student may contact the instructor or department for information.

SOIL 8123 Research Ethics in the Plant and Environmental Sciences
S-N only, 0.5 credit(s); prereq Enrolled in a plant/environmental sci grad research prog; Credit will not be granted if credit has been received for: APSC 8123;
Instructor: Steffenson, Brian Joel
Description: Student may contact the instructor or department for information.

SOIL 8128 Seminar in Soils
S-N only, 1 credit(s), max credits 2;
Instructor: Halbach, Thomas R.
Description: Student may contact the instructor or department for information.

SOIL 8195 Research Problems in Soils
1-5 credit(s), max credits 10, 10 repeats allowed; prereq [Grad major in soil sci or related field], instr consent;
Instructor: Nater, Ed
Description: Student may contact the instructor or department for information.

SOIL 8252 Advanced Soil Physics
2 credit(s); prereq [5232, differential equations] or instr consent;
Instructor: Gupta, Satish C
Description: Student may contact the instructor or department for information.

SOIL 8550 Teaching Experience
S-N only, 1 credit(s), max credits 6, 6 repeats allowed; prereq Grad major in soil sci or related field, instr consent;
Instructor: Allan, Deborah L
Description: Student may contact the instructor or department for information.
SPAN 344 Advanced Medical Spanish
S-N only, 0 credit(s); prereq Span 0144, 2 yrs. Spanish
College Level or equiv, dept consent.;
Instructor: Lopez, Maria Emilee
Description: Student may contact the instructor or department for information.

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 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. The readings in the text have been taken from Spanish language newspapers and magazines. Grammar is covered in the homework assignments and reinforced in class with a variety of paired and small group activities. 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% mid exam, 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 1022] or EPT placement;
Instructor: STAFF
Description: This course is for those who have completed Spanish 1022 or 1002 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, 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 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 of 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 - 70% discussion; 20 - 30% listening, writing, testing for comprehension and vocabulary, and peer editing
Grading: 50% quizzes, 10% class participation, 5% laboratory evaluation. 15% written composition; 10% round-table discussion; 10% debate
Exam Format: Exams evaluate listening, reading, vocabulary & grammar, writing & culture. A minimum of multiple choice and true/false items; encourage the use of natural language by using short answers, short/long essays. 1 debate

SPAN 1022 Alternate Second-Semester Spanish
5 credit(s); prereq Placement above 1001;
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 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 NOTE: 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. 10% listening and workbook exercises
Exam Format: All quizzes and tests evaluate listening, reading, vocabulary, grammar & writing. 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: Lopez, Maria Emilee
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 conversation 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 one 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 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 Span 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, 50% 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 [1014 or 1034 or 1044] or [3015 with grade of at least B-] or successful completion of 3021; Credit will not be granted if credit received for: Tldo 3022, 3023;

**Instructor:** Morales, Flavio Antonio

**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 exercises are intended to expose different perspectives on health and health care, promote cultural awareness and sensitivity.

Grade: 20% class participation, 5% other evaluation, compositions and portfolio, 5% participation in peer editing groups; 20% examinations; 10% web-CT activities and homework; 10% final research project.

**Exam Format:** Essays and short answers written in Spanish, together with grammar sections. Exams evaluate listening, reading, vocabulary & grammar, writing & culture. A minimum of multiple choice and true/false items.

SPAN 3044 Advanced Medical Spanish

4 credit(s); prereq [1004 or 1014 or 1044] or [3015 with grade of at least B-] or [1004 or 1014 or 1044] and credit will not be granted if credit received for: Tldo 3022, 3023;

**Instructor:** Lopez, Maria Emelie

**Description:** This course is designed to further develop and strengthen the linguistic skills and cultural awareness students have been exposed to and acquired in Intermediate Medical Spanish, 1044 (Spanish). This class is designed to train health care professionals and/or Spanish Studies majors/minors to communicate more effectively in linguistic and cultural terms with Spanish speaking patients. Students will explore more advanced and specific medical vocabulary, communication strategies and related cultural aspects. The goal is targeted to: improve conducting patient interviews and medical history, using vocabulary and conversation to conduct physical exams; and to better understand Latin American views on health and health care. The course applies a variety of communicative tasks to address learning skills, uses technology, and promotes discussion.

Students are to read course related articles and perform assignments on Web-CT about CD-ROM segments outside of class. Web-CT activities focus on vocabulary, listening, reading, writing, and discussion. CD-ROM features videotaped interviews of a significant number of health care providers who work with the Spanish speaking immigrant community and the unique opportunity to get perspectives on health related issues from Chicano/Latino immigrants in the Twin Cities. These exercises are intended to expose different perspectives on health and health care, promote cultural awareness and cultural sensitivity.

Grade: 20% class participation, 15% other evaluation, compositions and portfolio, 5% participation in peer editing groups; 20% examinations; 10% web-CT activities and homework; 10% final research paper.

**Exam Format:** Essays and short answers written in Spanish, together with grammar sections. Exams evaluate listening, reading, vocabulary & grammar, writing & culture. A minimum of multiple choice and true/false items.

SPAN 3104W Introduction to the Study of Hispanic Literatures

4 credit(s); prereq [1004 or 1014 or 1044]; LPE in Spanish or instr consent credit will not be granted if credit received for: Tldo 3022, 3023;

**Instructor:** Morales, Flavio Antonio

**Description:** This course is designed to further develop and strengthen the linguistic skills and cultural awareness students have been exposed to and acquired in Intermediate Medical Spanish, 1044 (Spanish). This class is designed to train health care professionals and/or Spanish Studies majors/minors to communicate more effectively in linguistic and cultural terms with Spanish speaking patients. Students will explore more advanced and specific medical vocabulary, communication strategies and related cultural aspects. The goal is targeted to: improve conducting patient interviews and medical history, using vocabulary and conversation to conduct physical exams; and to better understand Latin American views on health and health care. The course applies a variety of communicative tasks to address learning skills, uses technology, and promotes discussion.

Students are to read course related articles and perform assignments on Web-CT about CD-ROM segments outside of class. Web-CT activities focus on vocabulary, listening, reading, writing, and discussion. CD-ROM features videotaped interviews of a significant number of health care providers who work with the Spanish speaking immigrant community and the unique opportunity to get perspectives on health related issues from Chicano/Latino immigrants in the Twin Cities. These exercises are intended to expose different perspectives on health and health care, promote cultural awareness and cultural sensitivity.

Grade: 20% class participation, 5% other evaluation, compositions and portfolio, 5% participation in peer editing groups; 20% examinations; 10% web-CT activities and homework; 10% final research paper.

**Exam Format:** Essays and short answers written in Spanish, together with grammar sections. Exams evaluate listening, reading, vocabulary & grammar, writing & culture. A minimum of multiple choice and true/false items.
successful completion of 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 successful completion of 3021; credit will not be granted if credit has been received for: TLD 3107; meets CLE req of Writing Intensive; Instructor: STAFF
Description: Student may contact the instructor or department for information.

SPAN 3212 Discourses of Modern and Contemporary Spain, 1800-Present
3 credit(s); prereq 3104; Instructor: STAFF
Description: Al margen de su calidad intrínseca probada, la poesía española posee una cohesión, una sujeción y engarzamiento tales que su continuidad, su tradicionalismo, es uno de los rasgos que mejor la singulariza en el quehacer lírico ecuménico. Lo decisivo aquí es que lo nuevo y lo prestado de afuera se combina y funde con lo tradicional para convertirse en una hechura genuinamente española. De esta forma se explica el por que el Cancionero y el Romancero anónimos de los siglos XII-XVI aun pervivan en Juan Ramon Jimenez y Federico Garcia Lorca, poetas de nuestro siglo. Ocurre algo idéntico, salvando las distancias de las épocas, cuando el siglo y medio de la "Edad de Oro" (desde Jorge Manrique a Francisco Quevedo) encuentra eco cercano en los poetas de las generaciones de los años ochenta y noventas: con su agudeza de ser, su metrícia y su carácter nacional hispano. Tampoco habremos de olvidar que la Vieja España--aferrada a ese tradicionalismo castizo que ha venido retrasando, desde el XVII, el racionalismo afrancesado neoclásico, el Romanticismo del XIX (Bequer y Espronceda), el Modernismo americano de fin de siglo, etc.--se ha batido en los últimos dos siglos para mantener viva aquella "idiosincrasia española" obsesionada con el aislamiento y el exilio.
Grading: 20% final exam, 15% in-class presentation, 15% class participation. Ensayo # 1/# 2, 15%; @ @ Examen I, 20%

SPAN 3401 Service Learning in the Chicano/Latino Community
3 credit(s); prereq [3015 with grade of at least B-], LPE high pass; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme; Instructor: STAFF
Description: Student may contact the instructor or department for information.

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 Emilee
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 Chicano/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% Service Learning

SPAN 3510 Issues in Hispanic Cultures
A-F only, 3 credit(s); max credits 9, 3 repeats allowed; prereq 3105W credit will not be granted if credit received for: Tld 3301, 3302, 3311, 3312, 3313, 3314, 3514, 3321
Instructor: STAFF
Description: This course will explore how specific works of the 20th century Spanish theater and film, as cultural and aesthetic expressions, provide an account of relevant issues in Spanish culture such as the production of ruins in urban space, violence, torture, immigration, war, memory, and euthanasia. We will study plays by Alfonso Sastre, Antonio Buero Vallejo, Josep Maria Benet I Jornet, Sergi Belbel, Lluisa Cunillle, and films by Ventura Pons, Fernando Leon de Araona, Alejandro Gonzalez Iarreta, and Alejandro Amenabar, among others. Additional readings on Spanish history and culture will also be considered. The class will be conducted in Spanish.
Grading: 40% final exam, 30% reports/papers, 7% attendance, 15% in-class presentation, 8% class participation.

SPAN 3512 Modern Latin America
A-F only, 3 credit(s); prereq 3105W; Instructor: Hanneken,Jaime Elizabeth
Description: Student may contact the instructor or department for information.

SPAN 3512 Don Quijote and the Novel
3 credit(s); meets CLE req of Literature Core; Instructor: Spadaccini,Nicholas
Description: Cervantes’s Don Quijote (1605; 1615) will be analyzed and discussed in light of literary, historical, philosophical, and social-cultural issues. Specific areas of discussion include Don Quijote and the poetics of the novel; its transgression of the limits of traditional prose-fiction genres (chivalric, pastoral, picaresque, etc.); its dialogue with the conservative culture of Counterreformation Spain; and preset-day debates between critics who adhere to traditional humanist and/or historicist readings and those whose work is informed by avant-garde, post-structuralist theory. Our general approach should also facilitate a discussion of the function of other types of discourses within the novel’s frame. For example, one might argue that the purging of Don Quijote’s library (I, 6) recalls the ritual discourse of the Inquisition; that Sancho’s use of proverbs captures the weight of oral culture at a time when the majority of the population could neither read nor write; that the reactions of various characters to the oral reading of romances of chivalry allow us to speculate on matters of authority and authorial intentions as each listener brings to the reception his/her own preoccupations and tastes We shall also examine the strategy behind the novel’s inclusion of elements of both official and unofficial culture, and consider how Don Quijote manages to engage in popular practices.
Style: 60% Lecture, 30% Discussion. (Oral presentation? personal reflection on DON QUIJOTE)
Grading: 30% mid exam, 40% final exam, 10% reports/papers, 10% in-class presentation, 10% class participation.
Exam Format: Essays (analysis/discussion of key issues introduced in the course); Note: final exam is a take-home exam consisting of three questions to be distributed three weeks prior to the end of the semester.

SPAN 3702 Structure of Spanish: Morphology and Syntax
3 credit(s); prereq 3107; credit will not be granted if credit has been received for: SPAN 3702H; Instructor: Ocampo,Francisco Antonio
Description: Student may contact the instructor or department for information.

SPAN 3707 Linguistic Accuracy Through Translation
A-F only, 3 credit(s); prereq 3104 or 3105 or 3107; Instructor: Face,Timothy L
Description: A variety of texts in Spanish will be examined in terms of style/audience/lexicon (popular press, business, academic, etc.) as a framework for training undergraduate students to communicate with accuracy in a variety of contexts. Students will learn/review the lexical and grammatical choices at their disposal and will also learn to apply these in producing an acceptable translation of a text. Translations will be both from Spanish into English and English into Spanish, as each of these forces students to take into account different aspects of their
SPAN 3900 Film Studies in Spanish
A-F only, 3 credits; max credits 9, 3 repeats allowed; prerq 3104W or 3105W;
Instructor: Forcinito, Ana Maria
Description: Student may contact the instructor or department for information.

SPAN 3910 Topics in Spanish Peninsular Literature
A-F only, 3 credits(s), max credits 9, 3 repeats allowed; prerq 3104;
Instructor: Ramos-Garcia, Luis A
Description: Student may contact the instructor or department for information.

SPAN 3920 Topics in Spanish-American Literature
A-F only, 3 credits(s), max credits 9, 3 repeats allowed; prerq 3104; Credit will not be granted if credit has been received for: SPAN 3920H;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

SPAN 3972V Honors: Graduation Seminar
A-F only, 3 credits(s); prerq 31 cr of 3xxx, honors, dept consent; Credit will not be granted if credit has been received for: SPAN 3972W; Meets CLE req of Writing Intensive;
Instructor: O'Connell, Joanna
Description: In this class you will complete your senior project, a 20-25 page RESEARCH paper in either Spanish or Portuguese. We will meet as a group at various times during the semester to work together on the stages of the project: selecting and refining a topic; research and compiling a bibliography; outlines; drafts and revisions; the final version. There will be some weeks when we do not meet as a class, but you will have private appointments with the instructor. While each person will design an individual project, you will also work together in small groups during our class meetings for feedback on each stage of the process. The role of the instructor in the class is to guide you through the process of research and writing and to evaluate the final version. You are strongly encouraged to seek intellectual guidance on your topic from any member of the faculty of this department (or elsewhere if appropriate). Seeking assistance in spelling, grammar, and editing of the final version will be your responsibility. Please bring a written statement of your topic or question with some very preliminary ideas about what you will need to do in order to complete the project to the first day of class. Appropriate topics are those that both interest you and for which you have the necessary background and preparation. Please consult me or other faculty about your topic BEFORE the class begins.
Style: This is a workshop. Therefore expect some discussion and a lot of small group work when we meet in class.
Grading: 70% reports/papers, 30% special projects.
Participation includes drafting thesis statement, bibliography, outline, etc for in-class workshops.
Exam Format: no exam

SPAN 3972W Graduation Seminar
A-F only, 3 credits(s); prerq 31 cr of 3xxx, instr consent; Credit will not be granted if credit has been received for: SPAN 3972V; Meets CLE req of Writing Intensive;
Instructor: Spadaccini, Nicholas
Description: Student may contact the instructor or department for information.

SPAN 5109 The Crisis of the Old Regime: Spanish Literature of the Enlightenment and Romanticism
3 credits(s); prereq three 3xxx or 5xxx literature courses in Spanish or instr consent;
Instructor: STAFF
Description: This class is an overview of 18th- and 19th-century Spanish culture from 1775 to 1900. It focuses on the evolution of literature and the arts during the periods of the Enlightenment, Romanticism, and Realism/Naturalism. We will examine a variety of texts from different genres (theatre, poetry, short story, novel) and place them in their literary and historical contexts, in an attempt to describe Spain's uneven transition from the Old Regime to modernity. The list of authors includes Ramon de la Cruz, Moratin, Mesonero Romanos, Larra, Duque de Rivas, Espronceda, Becquer, Galdos, Pardo Bazan, and Clarin.

SPAN 5701 History of Ibero-Romance
3 credits(s); prereq 3703, two other 3xxx or 5xxx Spanish linguistics courses or instr consent;
Instructor: Ocampo, Francisco Antonio
Description: A study of the origins and development of the Ibero-Romance languages with emphasis on the evolution of Spanish, compared and contrasted with the other languages of the Iberian Peninsula. The general problem of linguistic change

This information is accurate as of 6/9/2008 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.
will be examined. Phonetic/phonological, and morphological issues will be studied in four stages: (1) Latin, (2) late Latin, (3) medieval Spanish, and (4) modern Spanish. Students taking this course must be familiar with articulatory phonetics terminology. For those students that do not meet this condition, the following reading is strongly recommended prior to taking the course:


Style: 70% Lecture, 30% Discussion. Grading: 30% mid exam, 30% final exam, 40% problem solving. Exam Format: essay

SPAN 5717 Spanish Sociolinguistics
3 credit(s); prereq Two 3xxx or 5xxx linguistics courses in Spanish or instr consent
Instructor: Klee, Carol Anne
Description: Student may contact the instructor or department for information.

SPAN 5970 Directed Readings
1-4 credit(s), max credits 9, 9 repeats allowed; prereq MA or PhD candidate, instr consent, dept consent, college consent;
Instructor: STAFF
Description: Student may contact the instructor or department for information.

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: O’Connell, Joanna
Description: Student may contact the instructor or department for information.

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: Ferran, Oefelia
Description: Student may contact the instructor or department for information.

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: Ocampo, Francisco Antonio
Description: Student may contact the instructor or department for information.

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: Spadaccini, Nicholas
Description: Student may contact the instructor or department for information.

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: Klee, Carol Anne
Description: Student may contact the instructor or department for information.

SPAN 5990 Directed Research
1-4 credit(s), max credits 9, 9 repeats allowed; prereq instr consent, dept consent, college consent;
Instructor: Ramos-Garcia, Lulu A
Description: Student may contact the instructor or department for information.

Speech-Language-Hearing Sciences

SLHS 1301W The Physics and Biology of Spoken Language
4 credit(s); Meets CLE req of Physical Science/Lab Core; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Introduction to the physics and biology of spoken language; the talker’s production of sounds and words; transmission of sound; the listener’s perception of what was heard; and computer analysis and synthesis of speech. Lectures will be supported by computer animations that show, in slow motion, rapidly changing dynamic events in acoustics, by on-line computer analysis of speech, and by laboratory sessions. Objectives: 1) Provide students who have a limited physics and biology background with an introduction to the physics and biology of spoken language, a field that is not only interesting, but of considerable social importance because of the dominant role that speech, language, and hearing play in society; and 2) Introduce students to recent technological advances associated with spoken language such as digital signal processing systems and speech recognition techniques. The trek through history 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.
Style: 60% Lecture. 40% Discussion. Grading: 50% mid exam, 25% final exam, 25% laboratory evaluation.
Exam Format: multiple choice
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 the latest 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 1302 Rate Your World: Quantifying Judgments of Human Behavior
3 credit(s); Meets CLE req of Mathematical Thinking Core; Instructor: STAFF
Description: This course will allow students with little mathematics background to learn basic quantitative methods as they apply to measuring human behavior. Introductory mathematical principles will be applied to measuring behaviors such as: rating personality and attention, evaluating infant speech perception, studying opinion polls, measuring voice and sound, and quantifying speech recognition through cochlear implants. Material will be presented using a mixture of lecture and hands-on activities in class. Mid-term and final examinations will focus on lecture material. In-class activities will be analyzed and written into short reports. Style: 40% Lecture, 30% Discussion, 30% Laboratory. Grading: 25% mid exam, 25% final exam, 50% reports/papers.

SLHS 1302 Rate Your World: Quantifying Judgments of Human Behavior
3 credit(s); Meets CLE req of Mathematical Thinking Core; Instructor: Glaze, Leslie
Description: This course allows students to develop quantitative mathematical and measurement skills by observing human behavior. Students will use basic statistics to measure, rate, rank, compare, table, plot, and analyze behavioral data. Using examples from opinion polls, tests of memory and learning measures, and perceptual judgments of speech, voice, hearing, and taste, students will collect and manipulate categorical, ordinal, and interval data. Lecture material will include examples from current social, political, economic, artistic, sports, and university events. Students will conduct hands-on in-class activities to accomplish everyday tasks such as: fuel economy, interest rates, percentage change, and estimating retirement savings. Throughout the course, students will use electronic student response systems to provide a highly interactive class experience. This course will allow students with little mathematics background to learn basic quantitative methods as they apply to measuring human behavior.
Style: 40% Lecture, 30% Discussion, 30% Laboratory. Grading: 25% final exam, 20% reports/papers, 25% quizzes, 30% written homework. Exam Format: short answer

SLHS 1402 The Talking Brain
3 credit(s); Meets CLE req of Social Science Core; Instructor: Watson, Peter J
Description: This course examines the relationship of human communication and its disorders to our biological makeup. We first discuss the origin of language, how the brain is involved in language and speech, do animals talk, are there differences between how men and women communicate based on biology, and the ways we investigate the involvement of our nervous system in communication. In the latter part of the class we discuss the differences between communication differences (dialects, second language users) and disorders, and how different brain abnormalities affect our ability to communicate. Interwoven throughout the course, we look at the how society views and understands communication disorders and differences
This is done by looking at movies and reading books. The movies and books are stories of individuals who have different communication disorders -- biographical or fiction. For example one of the movies that we consider is "Rain Man", the story of an adult autistic savant and his relationship with his brother. The course is made up of short readings and exercises.
Readings are from one textbook and from a collection of articles,
This information is accurate as of 6/9/2008 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 2008.
SLHS 3555H Honors Thesis
A-F only, 1-2 credit(s), max credits 2, 1 repeat allowed; prerequisite See dir of undergraduate 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 repeat allowed; prerequisite See dir of undergraduate 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 repeat allowed; prerequisite See dir of undergraduate studies for [thesis adviser, forms];
Instructor: Zhang, Yang
Description: Student may contact the instructor or department for information.

SLHS 4502 Atypical Speech and Language
3 credit(s);
Instructor: Watson, Peter J
Description: Student may contact the instructor or department for information.

SLHS 4603 Communication and Autism
3 credit(s);
Instructor: Reichle, Joe E
Description: Student may contact the instructor or department for information.

SLHS 4801 Hearing Measurement and Disorders
3 credit(s); prerequisite [3301, 3302] or [CDis 3301, CDis 3302] or instructor consent;
Instructor: STAFF
Description: This course will provide a basic orientation to audiologic assessment and disorders of the auditory system. The course is geared towards 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 4801 Hearing Measurement and Disorders
3 credit(s); prerequisite [3301, 3302] or [CDis 3301, CDis 3302] or instructor consent;
Instructor: Rao, Aparna
Description: This course will begin with a review of the sensory function of hearing, anatomy of the ear and disorders of the ear. The major focus of the course is audiological assessment and interpretation. The scope of practice in audiology will be reviewed. Emphasis will be placed on the tests used to assess hearing, including pure-tone audiometry, speech audiometry, immittance, electrophysiological tests, pure-tone screening, and pediatric assessment. Students will receive hands-on experience with otoscopic examination, pure-tone audiometry, tympanometry, and hearing screening. The course is geared towards undergraduate students majoring in Speech-Language-Hearing Sciences.
Style: 65% Lecture, 35% Laboratory.
Grading: 25% mid exam, 25% final exam, 25% quizzes, 25% laboratory evaluation.

SLHS 5503 Dysphagia and Motor Speech Disorders
3 credit(s); prerequisite [3305, 4301] or [CDis 3305, CDis 4301] or instructor consent;
Instructor: Poluha, Patricia Catherine
Description: This course focuses on the evaluation and management of swallowing disorders and motor speech disorders across the life span. You will learn about the physiology and neural control of normal swallowing, the theories of swallowing, and the causes of swallowing disorders. You will obtain hands-on experience performing a clinical swallow evaluation and you will become familiar with other diagnostic procedures. You will learn how to establish appropriate interventions for individuals with swallowing disorders. In the second part of the course you will learn how to differentially diagnose the dysarthrias and apraxia of speech. You will learn how to evaluate and plan intervention for individuals with motor speech disorders.
Style: 45% Lecture, 20% Film/Video, 5% Small Group Activities, 15% Demonstration, 5% Field Trips, 10% Guest Speakers.

SLHS 5603 Language and Cognitive Disorders in Children
3 credit(s); prerequisite 3303 or CDis 3303 or equiv or instructor consent;
Instructor: Windsor, Jennifer
Description: The focus of the course is on assessment and intervention by speech-language pathologists for children with language delays and disorders. The course deals with issues relevant in prelinguistic communication and language in the preschool and school years through adolescence. Several populations with language disabilities will be addressed (e.g., individuals with primary language impairment, learning disabilities, autism, and other developmental disabilities). Current assessment and intervention frameworks and procedures will be described; the research guiding current practice also will be discussed. The course is designed primarily for graduate students in Speech-Language Pathology who have a background in children's typical language development and who have/have had practical educational or clinical experiences with children with language difficulties. The class is open to other students with an interest in language development and disabilities.
Style: 55% Lecture, 35% Small Group Activities, 10% Guest Speakers.
Grading: 35% mid exam, 35% final exam, 10% quizzes, 20% additional semester exams. For students completing the M.A. degree in Speech-Language Pathology a B- grade or better is necessary to participate in a related clinical practicum.
Exam Format: The first class exam is short answer (20%). The mid and final exam (each 35%) are essay questions. The quizzes (10%) relate to course readings.

SLHS 5605 Language and Cognitive Disorders in Adults
3 credit(s); prerequisite [3302, 4301] or [CDis 3302, CDis 4301] or instructor consent;
Instructor: Kennedy, Mary R T
Description: Student may contact the instructor or department for information.

SLHS 5606 Introduction to Augmentative and Alternative Communication
3 credit(s);
Instructor: Reichle, Joe E
Description: One purpose of this course is to provide an overview of the range of augmentative and alternative communication systems available for persons with developmental and acquired disabilities. A second purpose is to...
teach participants how to implement assessment and intervention procedures to establish gestural and graphic mode communication systems. Many of the examples used in teaching this course address the communicative needs of school-aged populations who experience moderate/severe developmental disabilities. However, most of the applications will be relevant to augmentative communication applications for individuals acquired disabilities. Although not a primary objective of this course, you will be exposed to the features of several electronic communication aids. At the conclusion of this course, you should have obtained the following competencies: 1) an understanding of the minimal requirements of an acceptable augmentative or alternative communication system. 2) familiarity with the advantages and disadvantages of graphic and gestural communication modes. 3) a working knowledge of direct select and scanning selection techniques used in accessing a graphic mode communication system. 4) an understanding of assessment strategies designed to match learners with an augmentative communication system(s). 5) an understanding of the criteria for selecting initial vocabulary for an augmentative system user.

**Description:**

- **Style:** 70% Lecture, 15% Discussion. using computer simulations
- **Grading:** 75% quizzes, 25% problem solving.
- **Exam Format:** short answer/essay

**SLHS 5608 Clinical Issues in Bilingualism and Cultural Diversity**

- **Course Title:** A-F only, 3 credit(s); prereq 3303 or equiv or instr consent
- **Instructor:** Kohner,Kathryn
- **Description:** COURSE TITLE IS: CLINICAL ISSUES IN BILINGUALISM AND CULTURAL DIVERSITY This course will survey topics in cultural diversity, bilingualism and second language learning in typical children and adults as well as in those with developmental and acquired communication impairments. A general course objective is to increase understanding of basic and applied issues across a broad range of culturally and linguistically diverse populations.

**SLHS 5805 Advanced Rehabilitative Audiology**

- **Course Title:** A-F only, 3 credit(s); prereq 4802 or [equiv, instr consent]
- **Instructor:** Rao,Aparna
- **Description:** Student may contact the instructor or department for information.

**SLHS 5820 Clinical Research and Practice: Grand Rounds**

- **Course Title:** S-N only, 1-6 credit(s), max credits 6, 6 repeats 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 5993 Directed Study**

- **Course Title:** 1-12 credit(s), max credits 18, 18 repeats allowed; prereq instr consent
- **Instructor:** STAFF
- **Description:** Student may contact the instructor or department for information.

**SLHS 8410 Seminar: Research**

- **Course Title:** 3 credit(s)
- **Instructor:** Nelson,Peggy B
- **Description:** Student may contact the instructor or department for information.

**SLHS 8430 Proseminar in Speech-Language-Hearing Sciences**

- **Course Title:** S-N only, 1 credit(s), max credits 10, 10 repeats allowed; prereq intended for students in Department of Speech-Language-Hearing Sciences
- **Instructor:** Windsor,Jennifer
- **Description:** Student may contact the instructor or department for information.

**SLHS 8530 Seminar: Speech**

- **Course Title:** 3 credit(s), max credits 12, 4 repeats allowed
- **Instructor:** Zhang,Yang

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**COURSE TITLE IS: CLINICAL ISSUES IN CULTURAL DIVERSITY**
Instructor: Carney, Ariene Earley
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 repeats 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 repeats allowed; prereq instr consent;
Instructor: Deruiler, Mark
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 repeats allowed; prereq instr consent;
Instructor: Munson, Benjamin
Description: Student may contact the instructor or department for information.

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

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 repeats allowed; prereq instr consent;
Instructor: Kohnert, Kathryn
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 repeats allowed; prereq instr consent;
Instructor: Nelson, Peggy B
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 repeats allowed; prereq instr consent;
Instructor: Reichle, Joe E
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 repeats allowed; prereq instr consent;
Instructor: Reichele, Joe E
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 repeats allowed; prereq instr consent;
Instructor: Kohnert, Kathryn
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 repeats allowed; prereq instr consent;
Instructor: Manson, Benjamin
Description: Student may contact the instructor or department for information.

SLHS 8994 Directed Research
1-12 credit(s), max credits 18, 18 repeats 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 repeats allowed; prereq instr consent;
Instructor: Zhang, Yang
Description: Student may contact the instructor or department for information.

Sport Management

SMGT 3111 Sports Facility and Event Management
A-F only, 3 credit(s); prereq SMGT major or instr consent;
Instructor: Brownlee, Eric A
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: Soroka, Matthew Alan
Description: Principles, policies, and procedures in administration/management of sports programs at interscholastic/intercollegiate levels.

SMGT 3421 Business of Sport
A-F only, 3 credit(s); prereq SMGT or kin or rec major or instr consent;
Instructor: Allison JD, Rayla

SMGT 3501 Sport in a Diverse Society
A-F only, 3 credit(s); Meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core;
Instructor: Buysse, Jo Ann
Description: Sport is symbolic of the larger social order and the meanings of sport are tied to cultural perceptions and evaluations. Societal beliefs about values and norms are intimately related to sport as it mirrors society in its practices and experiences. The study of sport encompasses a wide variety of issues which are reflected by the many different cultures that engage in sport. This course is designed to examine the pervasive and significant relationship between sport and contemporary social institutions such as politics, religion, economics, education and the mass media. Its primary emphasis will be to introduce students to a broad perspective of social issues related to sport, while at the same time, provide students with an opportunity to critically explore their knowledge base and increase their understanding of issues related to gender and diversity in sport. Students will be exposed to the contributions and experiences of groups of individuals who have historically been marginalized or excluded from sport participation. Particular emphasis will be given to the social construction of gender and the role that sport has played in gender differentiation and gender hierarchy. Variables such as race, sex, social class, sexual orientation and physical disabilities will be emphasized. Although the goal of this course is to address critical issues and question current practices in sport, students will also learn and develop important critical reading, writing, thinking, and discussion skills.
Style: 30% Lecture, 20% Discussion, 20% Small Group Activities, 15% Guest Speakers, 15% Service Learning.
Grading: 25% mid exam, 25% final exam, 35% reports/papers, 15% attendance.

This information is accurate as of 6/9/2008 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.
SMGT 3601 Ethics and Values in Sport  
A-F only, 2 credit(s); prereq SMGT major;  
Instructor: Buyssse, Jo Ann  
Description: In sport management we have many opportunities to ask questions regarding acts and decisions as right or wrong. What does it mean to act in a way that characterizes good behavior? How do we develop morally? What are our personal values and moral orientations? Does sport perpetuate violence in society? What is moral and ethical conduct in sport management? What is meant by the term social responsibility? Do professional sport team owners have a responsibility to the community? How do we make decisions that are good, right and authentic? These questions and other ethical issues in sport will be explored from historical, philosophical, and sociological perspectives. Students will learn about ethical concepts and theories and they will have opportunities to apply ethical decision making skills to case studies in sport.  
Style: 50% Lecture, 20% Discussion, 20% Small Group Activities. 10% Student Presentation.  
Grading: 40% mid exam, 40% reports/papers, 10% attendance.

SMGT 3621 Senior Seminar in Sport Management  
A-F only, 3 credit(s); prereq SMGT major, completion of major coursework, instr consent;  
Instructor: Allison JD, Rayla  
Description: Presentations/discussions on sport-related topics of interest.

SMGT 3681W Senior Seminar in Sport Management  
A-F only, 3 credit(s); prereq SMGT major, completion of major coursework, instr consent;  
Instructor: Allison JD, Rayla  
Description: Presentations/discussions on sport-related topics of interest. Preparation for a career in the sports industry or graduate school.

SMGT 3996 Practicum: The Sport Experience  
S-N only, 1-10 credit(s), max credits 10, 10 repeats allowed; prereq 3881, SMGT major, instr consent;  
Instructor: Buyssse, Jo Ann  
Description: This is an experiential learning course where students learn and work in a professional organization outside of the classroom. This course is designed for Sport Studies majors only. It is their final core course. It is similar to an internship, with the exception that practicum credits may be divided between two semesters and also between two sites.  
Style: field experience  
Grading: 20% reports/papers, 80% other evaluation. Supervisor evaluation of work

SMGT 3996 Practicum: The Sport Experience  
S-N only, 1-10 credit(s), max credits 10, 10 repeats allowed; prereq 3881, SMGT major, instr consent;  
Instructor: Allison JD, Rayla  
Description: Practical experience in one or more sport settings.

STAT 1001 Introduction to the Ideas of Statistics  
4 credit(s); prereq High school algebra; Meets CLE req of Mathematical Thinking Core;  
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); prereq Two yrs high school math; Credit will not be granted if credit has been received for: STAT 5021; Meets CLE req of Mathematical Thinking Core;  
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 3022 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 4012 Theory of Statistics II  
4 credit(s); prereq 4101; Credit will not be granted if credit has been received for: STAT 5102;  
Instructor: Zou, Hui  
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 underlying these methods. The course includes a brief non-calculus introduction to probability theory and statistical distributions.
Style: 50% Lecture, 25% Discussion, 25% Laboratory.

STAT 5102 Theory of Statistics II
4 credit(s); prereq 5101 or Math 5651; Credit will not be granted if credit has been received for: STAT 4102;
Instructor: Geyer, Charles J
Description: Student may contact the instructor or department for information.

STAT 5301 Sampling Methodology in Finite Populations
3 credit(s); prereq 3011 or 3021 or 5021 or instr consent;
Instructor: Meeden, Glen Dale
Description: An introduction to finite population sampling covering simple random sampling, stratified sampling, cluster sampling, unequal probability sampling and systematic sampling. Ratio estimators, regression estimators and model based estimation will be discussed.
Style: 100% Lecture.
Grading: 40% mid exam, 40% final exam, 20% written homework.

STAT 5401 Applied Multivariate Methods
3 credit(s); prereq 5302 or 8102 or instr consent;
Instructor: Chatterjee, Singdhansu Bhusan
Description: Student may contact the instructor or department for information.

STAT 5932 Topics in Statistics
3 credit(s);
Instructor: Oehlert, Gary W
Description: Student may contact the instructor or department for information.

STAT 5993 Tutorial
1-6 credit(s), max credits 12, 12 repeats allowed; prereq instr consent;
Instructor: STAFF
Description: Students may contact the department for information.

STAT 8052 Applied Statistical Methods 2: Design of Experiments and Mixed -Effects Modeling
A-F only, 4 credit(s); prereq 8051 or instr consent;
Instructor: Grund, Birgit
Description: Style: 85% Lecture, 15% Laboratory.
Grading: 40% mid exam, 40% final exam, 20% written homework.
Exam Format: in-class

STAT 8054 Statistical Methods 4: Advanced Statistical Computing
A-F only, 2 credit(s); prereq 8053 or instr consent;
Instructor: Geyer, Charles J
Description: Student may contact the instructor or department for information.

STAT 8102 Theory of Statistics 2
4 credit(s); prereq 8101, Statistics graduate major or instr consent;
Instructor: Wang, Lan
Description: Student may contact the instructor or department for information.

STAT 8112 Mathematical Statistics II
3 credit(s); prereq 8111;
Instructor: Jones, Galin
Description: Student may contact the instructor or department for information.

STAT 8511 Time Series Analysis
3 credit(s); prereq 5102 or 8111 or instr consent;
Instructor: Yang, Yuhong
Description: Student may contact the instructor or department for information.

STAT 8801 Statistical Consulting
S-N only, 2-3 credit(s), max credits 3, 1 repeat allowed; prereq Grad stat major or instr consent;
Instructor: Weisberg, Sanford
Description: 

STAT 8811 Statistical Consulting Practicum
S-N only, 3 credit(s), max credits 12, 4 repeats allowed; prereq Statistics grad student or instr consent;
Instructor: Weisberg, Sanford
Description: Student may contact the instructor or department for information.

STAT 8913 Literature Seminar
S-N only, 1 credit(s), max credits 4, 4 repeats 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
3 credit(s), max credits 12, 4 repeats allowed;
Instructor: Geyer, Charles J
Description: Student may contact the instructor or department for information.

STAT 8932 Advanced Topics in Statistics
3 credit(s), max credits 12, 4 repeats allowed;
Instructor: Zou, Hui
Description: Student may contact the instructor or department for information.

SCMC 1201 Introduction to Cinema and Media Culture
4 credit(s); prereq credit will not be granted if credit has been received for: CSCL 1201; Credit will not be granted if credit has been received for: CSCL 1201; Meets CLE req of Other Humanities Core;
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.

SCMC 3001W History of Cinema and Media Culture
4 credit(s); Meets CLE req of Writing Intensive;
Instructor: Groening, Stephen F
Description: Student may contact the instructor or department for information.

SCMC 3202 Intermediate Digital Filmmaking
A-F only, 4 credit(s); prereq 3201 or instr consent;
Instructor: Horan Jr, John Joseph Patrick
Description: Student may contact the instructor or department for information.

SCMC 5002 Advanced Film Analysis
A-F only, 4 credit(s);
Instructor: Johnson, Kjel Wayne
Description: Student may contact the instructor or department for information.

SWED 1002 Beginning Swedish
5 credit(s); prereq 1001; Credit will not be granted if credit has been received for: SWED 4002;
Instructor: STAFF
Description: This course continues the beginning sequence in Swedish, which covers four language skills: listening, speaking, reading and writing. Students will also gain knowledge of Swedish culture through various means, including audio-visual aids available in the language laboratory. Lecture, class discussions and classroom exercises will be conducted in Swedish. 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. You may register for this course under the number Swed 4002 for a reduced number of credits (and lower tuition) if you have already passed the Language Proficiency Exam (LPE) in another language or are a graduate student or a non-degree-seeking student. Contact the Department Office at (612) 625-2080 for a permission number.
Style: 10% Lecture, 70% Discussion, 20% Laboratory. 50% reading/writing; 50% oral/aural

Surgery
11-100 Phillips Wangensteen Bldg (Box 195)
SWED 4004 Intermediate Swedish
2 credit(s); prerequisite 1004 in another language or passing score on LPE or grad student; Credit will not be granted if credit has been received for: SWED 1004;
Instructor: STAFF
Description: This course continues the presentation of language skills—speaking, writing, listening and reading begun in Swedish 1001/1002. 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 representative social situations. The interaction will familiarize students with the different levels of formality and intimacy used in conversational settings, and the codes and mythologies unique to Swedish culture. You may register for this course under the number Swed 4004 for a reduced number of credits (and lower tuition) if you have already passed the Language Proficiency Exam (LPE) in another language or are a graduate student or a non-degree-seeking student. Contact the Department Office at (612) 625-2080 for a permission number.
Style: 10% Lecture, 70% Discussion, 20% Laboratory.

TESL 3001W Basics in Teaching English as a Second Language
214 Nolte Center
4 credit(s); prerequisite Have studied another language, [native speaker or [C-TOEFL score of at least 213 or equiv]; Meets CLE req of Citizenship/Pub-Ethics Theme; meets CLE req of Cultural Diversity Theme; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: TESL 3001 is designed to be a practical course, using a service learning approach, to prepare students to teach ESL in community programs. The course uses lectures, demonstrations, discussions, group work, and practice teaching to develop student skill and understanding regarding techniques for teaching and assessing English as a second language. Students will also gain insight into the phonological and syntactic systems of English, the linguistic, psychological, and sociocultural factors that influence second language acquisition, and cultural knowledge of local immigrant groups, such as Hmong, Somali, and Hispanics. Course assignments aim to promote reflection about teaching and learning, cultural identity and cross cultural communications, and addressing lesson management issues and needs analyses. An internship at a school or agency teaching ESL is required and will be arranged on the first day of class. The internship requires 2-3 hours of volunteer teaching per week. The internship gives students a context to apply lessons from class and the class serves as a sounding board to discuss issues that arise during the internship. Giving presentations in class, participating in small group and whole class discussions, and writing to connect theory and practice are important parts of the class. The class is 4 credits, meets CLE requirement of Citizenship/Pub-Ethics Theme; meets CLE requirement of Cultural Diversity Theme; meets Writing Intensive requirements and is also part of the TESL minor.
Style: 15% Lecture, 20% Discussion, 35% Small Group Activities, 10% Student Presentation, 20% Guest Speakers.
Grading: 15% in-class presentation, 15% class participation, 25% other evaluation. Exams include short answers, essays, and multiple choice questions
Exam Format: short answer essay
TRELS 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 experience a new culture? What are your strengths as a language learner? This course is about improving language and culture learning—getting a sense of your learning style preferences and language strategy preferences. You will 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 will not only make you more aware, but also better equip you to succeed at learning and using languages now and in the future, at home and abroad. The approach of the course is to provide you with background readings on learning a new language, to engage you in diagnosing your learning style and language strategy preferences and those of your peers, and to have you participate in classroom exercises intended to simulate real language learning and language use situations. The topics include: (a) learning a new language, (b) learning style preferences, (c) defining and classifying language learner strategies; (d) strategies for cross-cultural awareness and enhancing adaptation to a new culture, (e) strategies by skill-area-listening, vocabulary learning, speaking, reading, writing, translation, and nonverbal strategies, (f) motivation in language learning, (g) the intersection of task, style, and strategy, and (h) learning language under differing teaching methods.
Exam Format: 2 term papers: describing yourself and then 3 peers as language learners.
Style: 20% Lecture, 30% Discussion, 20% Small Group Activities, 20% Student Presentation, 10% Guest Speakers.
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.

TRELS 5401 Language Analysis for Teachers of English as a Second Language
4 credit(s); prerequisite Ling 3001 or Ling 5001 or instr consent;
Instructor: STAFF
Description: This course, required for both MA ESL majors and undergraduate ESL minors, provides an overview of the structure of the English language that is specifically geared to the needs of teachers of English to speakers of other languages (both ESL and EFL). While not focusing on pedagogical issues per se, it will view the structures of English from the point of view of second language speakers as well as analyzing the ways in which native speakers use the language. The core function of the course is to make clear the links between theoretical concepts in linguistics and the structure of the language produced by native speakers of English. TESL 5401 is the first of a two-semester sequence. In TESL 5401 we will cover English phonetics and phonology, basic morphology of English, and the grammar of the simple sentence in English, including word order, subject-verb agreement, verb tense and aspect, modals, negation, and question formation. > Grade for Graduate credit: 40% written reports/papers, 45% quizzes, > 15% class participation > Grade for Undergraduate credit: 85% quizzes, 15% class participation > Exam format: short answer essay.
Style: 50% Lecture, 50% Discussion.
Grading: 40% reports/papers, 45% quizzes, 15% class participation. Grade for Graduate credit: 40% written reports/papers, 45% quizzes, 15% class participation. Grade for Undergraduate credit: 85% quizzes, 15% class participation.
Exam Format: short answer essay

TRELS 5722 Practicum in Teaching English as a Second Language
S-N only, 6 credit(s), max credits 12; prerequisite [TESL 5401 or concurrent registration is required (or allowed) in 5401], [TESL 5402 or concurrent registration is required (or allowed) in 5402], 5721, ESL major or ESL minor] or instr consent;
Instructor: Lazaraton, Anne
Description: This course provides practical, hands-on experience in teaching English as a second language to adults. The teaching experience involves applying, in a practical context, the theoretical and descriptive material studied in the ESL M.A. program. Prerequisites: TESL 5721, TESL 5401, concurrent enrollment in or completion of TESL 5402, and permission of instructor. Class is limited to M.A. ESL majors; enrollment is usually capped at 10.
Style: 10% Discussion, participation in apprenticeship placement.
Grading: 10% class participation, 90% other evaluation.

TRELS 5900 Topics in Second Language Learning and Teaching
3 credit(s), max credits 12, 4 repeats allowed;
Instructor: Cohen, Andrew David
Description: May contact the instructor or department for information.

TRELS 5993 Directed Studies
1-4 credit(s), max credits 9, 9 repeats allowed; prerequisite instructor consent, department consent, college consent;
Instructor: STAFF
Description: In order to obtain Directed Studies credit through TRELS 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 ESOL must approve it and sign as the supervisor for the project. Forms are available in the department office.

Theatre Arts
580 Rapin Center

TH 110V Honors Section: Introduction to the Theater
A-F only, 4 credit(s); prerequisite Honors; meets CLE req of International Perspect Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive;
Instructor: Lewis, Megan
Description: TH 110V 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 art and education, TH 1101 introduces diversity and celebrates creativity. For students interested in business and law, TH 1101 promotes collaboration and critical thinking and enhances oral communication skills. For students interested in the sciences, TH 1101 strengthens interpersonal communication skills and promotes right-brain activity: For students interested in engineering and math, TH 1101 encourages abstract thinking and creative application of knowledge; For students interested in the humanities, TH 1101 explores the human experience and the intersections of art, history, and culture; For students interested in medicine, TH 1101 emphasizes the well-being of the soul through collaborative exchange. A-F only, prerequisite Honors, meets Lib Ed req of International Perspective Theme; meets Lib Ed req of Literature 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: 90% reports/papers, 10% special projects, 10% attendance, 20% reflection paper, 5% class participation.

TH 1101W Introduction to the Theatre
4 credit(s); meets CLE req of International Perspect Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive;
Instructor: Lewis, Megan
Description: TH 1101 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 art and education, TH 1101 introduces diversity and celebrates creativity. For students interested in business and law, TH 1101 promotes collaboration and critical thinking and enhances oral communication skills. For students interested in the sciences, TH 1101 strengthens interpersonal communication skills and promotes right-brain activity: For students interested in engineering and math, TH 1101 encourages abstract thinking and creative application of knowledge; For students interested in the humanities, TH 1101 explores the human experience and the intersections of art, history, and culture; For students interested in medicine, TH 1101 emphasizes the well-being of the soul through collaborative exchange. A-F only, prerequisite Honors, meets Lib Ed req of International Perspective Theme; meets Lib Ed req of Literature 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: 90% reports/papers, 10% special projects, 10% attendance, 20% reflection paper, 5% class participation.
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 art and education, TH1101 introduces diversity and celebrates creativity; For students interested in business and law, TH1101 promotes collaboration and critical thinking and enhances oral communication skills; For students interested in the sciences, TH1101 strengthens interpersonal communication skills and promotes right-brain activity; 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 International Perspective Theme; meets Lib Ed req of Literature 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 Other Humanities Core; meets CLE req of Other Humanities Core; meets CLE req of Other Humanities Core; meets CLE req of Other Humanities Core; meets CLE req of Other Humanities Core; meets CLE req of Other Humanities Core; meets CLE req of Other Humanities Core; meets CLE req of Other Humanities Core; meets CLE req of Other Humanities Core; meets CLE req of Other Humanities Core

Instructor: Lewis, Megan

Description: The first half of this introductory level course will explore the following questions: What are THE MEDIA? What is DRAMATIC about them? How are media CONSTRUCTED? PRODUCED? RECEIVED and UNDERSTOOD? How do media MAKE MEANING? And how do media function as STORIES cultures tell themselves to define themselves? The second half of the class will focus on several in-depth case studies, including The Documentary Form, Africa in Film, Advertising & Culture Jamming, and other compelling topics. 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. 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!

Style: 25% Lecture, 25% Film/Video, 25% Discussion, 15% Small Group Activities, 5% Guest Speakers, 5% Web Based.

Grading: 25% mid exam, 25% final exam, 15% special projects, 10% attendance, 10% 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); prerequisite 1101 or concurrent registration 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); prerequisite 1321;

Instructor: Rosen, Robert S

Description: Creative approaches to re-inventing life on-stage. To create a theatre of human nature, through diverse forms of visual expression, music, language and acting technique. This course is designed to stimulate individual expression and creativity through the exploration of theatrical genres and techniques while at the same time encouraging originality. Discover the art of the Director as a collaborator, guiding the efforts of the playwright, designers and actors. Students will serve as both actors and directors to create solo, collaborative and student directed performances using acting techniques based in eclectic forms of visual and verbal expression. The course will explore original student generated work as well as previously conceived scripted work. Text work will include examining the relation between what is in the words of a text and what lies between the words.

TH 1322 Creating the Performance
3 credit(s); prerequisite 1321;

Instructor: Channer, Lisa E

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

TH 1395 BFA Acting II
A-F only, 3 credit(s); prerequisite 1391;

Instructor: Mitchell, Kenneth N

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

TH 1396 BFA Voice and Speech II
A-F only, 2 credit(s); prerequisite 1392;

Instructor: STAFF

Description: BFA Core Component

TH 1397 BFA Movement II
A-F only, 2 credit(s); prerequisite 1393;

Instructor: STAFF

Description: BFA Core Component

TH 1911W Freshman Seminar: Theatre, Entertainment With Attitude
A-F only, 3 credit(s); prerequisite Fr with no more than 30 cr;

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 University of Minnesota - Course Guide for Twin Cities Campus Fall 2008

This information is accurate as of 6/9/2008 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.
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 when, do acting, scenery, costumes, lighting, and sound combine into 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 2395 BFA Acting IV**

A-F only, 3 credit(s); prereq BFA-Acting sophomore;

**Instructor:** Mitchell, Kenneth N

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

**TH 2396 BFA Voice and Speech IV**

A-F only, 2 credit(s); prereq BFA-acting, sophomore;

**Instructor:** STAFF

**Description:** BFA Core Component

**TH 2397 BFA Movement IV**

A-F only, 2 credit(s); prereq BFA-acting sophomore;

**Instructor:** STAFF

**Description:** BFA Core Component

**TH 3100 Theatre Practicum**

S-N only, 1 credit(s), max credits 4, 4 repeats allowed; prereq 1101; only two enrollments as actor may count toward a major;

**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 3120 Theatre: Theory and Practice**

3 credit(s), max credits 6; prereq 1101;

**Instructor:** Palani, Malin A

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

**TH 3316 Voice for the Actor**

A-F only, 3 credit(s); prereq 1101, 1321, 1322;

**Instructor:** Nash, Elizabeth

**Description:** The student will be taught anatomy and physiology of the vocal mechanism and respiratory system, abdominal breathing, forward tonal placement, clear articulation of consonants, vocal projection and pitch range, IPA phonetic transcription and vowel standardization for American Standard Stage Speech. These techniques will be applied to the performance of dramatic monologues. Due to the ensemble and performing emphasis of this course, attendance is required and will figure in grading.

**Style:** 10% Discussion, 90% Student Presentation.

**Grading:** 100% special projects.

**Exam Format:** presentations

**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:** Longhi, Keye

**Description:** Physical Approaches to Acting will use Margolis Method to focus on the actor's body as the primary inspiration and tool for creating theatre. Influenced by the work of Grotowski, Brecht and Decroux's corporeal technique, Margolis Method is an ongoing research that seeks to expand the actor's expressive boundaries by honing their creative dramaturgical skills. In this course we will use exercises in technique and improvisation structures to unite our physical instincts with our intellect - so that our mind is freed to ride on the impulses of our bodies and our imagination becomes muscular. We will work to: demystify the creative process, expose and break down personal physical tendencies, develop our energy, develop more specific articulation of our bodies, expand the body's connection to breath and the voice, and explore our bodies' dynamic relationship with space and other bodies; all with the goal of making more vivid, embodied choices that are essential whether we are interpreting a role or generating original material. We will interact with masks, objects, sticks, set pieces, each other's bodies, space, gravity, words, silence and ourselves. We will explore a full range of psychophysical expression, from the everyday to the metaphorical and poetic. We will read and reflect on other physical methods and research the roots of Margolis Method, giving us a frame of reference from which to begin sculpting your own physical approach to acting. Assignments will range from creating an original scene to interpreting a scene from dramatic literature. Discover how a disciplined corporeal technique can actually free you to connect to your emotions more deeply, harness and draw upon your energy more powerfully, and cause your ?playing? to come to life more fully.

**TH 3361 Introductory Musical Theater**

A-F only, 3 credit(s);

**Instructor:** Nash, Elizabeth

**Description:** The focus of this course is on the development of essential dance and singing warm-ups and skills, textual interpretation, character development, repertory building and audition techniques for musical theatre. Students will perform song and dance works from musical theatre to culminate in a final cabaret performance.

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

**Grading:** 20% reports/papers, 30% in-class presentation, 20% class participation, 30% other evaluation. Attendance

**Exam Format:** performance presentations

**TH 3381 Theatre Storytelling and Solo Performance**

3 credit(s); prereq 3314 or concurrent enrollment 3314;

**Instructor:** STAFF

**Description:** Where acting is the art of becoming someone else on stage; storytelling is the art of becoming yourself on stage. Come explore the process of crafting and telling your own stories?from both autobiographical and traditional source material. Guest teachers Kevin Kling and Nancy Donoval are professional storytellers who tour nationally telling stories to audiences of all ages and walks of life. Storytelling will make you a better actor, a better public speaker, a better communicator of any kind. This course will explore both the how-to's and why-to's of storytelling. Topics covered may include: ? The dynamics of the Story-Teller-Audience relationship. ? How storytelling and solo performance differ and overlap. ? Purposes and applications of storytelling in everyday life. ? How stories define us personally and as a community. ? How images and themes work together to connect the audience to the story on a universal level. ? Story sources and types: autobiographical, oral history, traditional, folk, fable, historical, literary, humor, ghost, myth, hero and trickster. ? The question of age: storytelling for adults and storytelling for children. ? Why story and plot are not the same thing? and 10 plot forms to play with. ? Shaping the emotional arc of the story. ? First person and third person storytelling. ? Telling the big stories ? transforming trauma into story. ? Telling the small stories ? transforming anecdotes into story. ? Discerning the stories that speak to you. ? Finding your mentors?known and unknown. ? What is a story?s invitation to
the audience? Living and telling in the moment.

Style: 10% Lecture, 80% Laboratory.

Grading: Attendance, class participation, in-class tellings, papers, risk, growth.

TH 3395 BFA Intensive I
A-F only, 2 credit(s); prereq BFA-acting jr;
Instructor: STAFF
Description: BFA Core Component

TH 3398 BFA Rehearsal & Performance I
A-F only, 2 credit(s); prereq BFA-acting jr;
Instructor: STAFF
Description: BFA Core Component

TH 3399 BFA Rehearsal and Performance II
A-F only, 2 credit(s); prereq BFA-acting jr;
Instructor: STAFF
Description: BFA Core Component

TH 3505 Design and Technical Production II: BFA
3 credit(s); prereq 3513, BFA theatre arts student credit will not be granted if credit received for: 3515;
Instructor: Lefebvre, Mathew James
Description: Student may contact the instructor or department for information.

TH 3515 Design and Technical Production II
4 credit(s); prereq 1101;
Instructor: Lefebvre, Mathew James
Description: This course explores the theory and execution of theatre design and technology from the script to the production on stage. Students will be exposed to the design process and participate in understanding what it takes to move design into production and performance. The focus of this class is costumes and lighting. The projects and the laboratory will give the student hands-on experience in the principles and processes discussed in class. The course is divided in half: one half of the semester is lighting; the other costumes. Each segment culminates in a major project and an exam on the material covered in that segment. The laboratory can be 4 scheduled hours per week or performance-oriented (section 12).
Style: 50% Lecture, 50% Discussion.
Grading: 15% mid exam, 15% final exam, 20% reports/papers, 20% special projects, 30% laboratory evaluation.
Exam Format: short answer -- all types

TH 3950 Topics in Theatre
1-4 credit(s), max credits 8, 8 repeats allowed; prereq Varies by topic;
Instructor: Emery, Margaret
Description: Aerial Techniques introduce you to the single trapeze and the Spanish web. Both of these skills will require improved strength, flexibility and mental focus. Tricks on the trapeze include pull ups, angels, splits (under bar), sits and stands, cradles and double cradles as well as knee hangs and one knee hangs. Web tricks will involve the climb, loop work (hand and foot) and loopless knots. Equalibristics will include the balancing of ones self through handstands, headstands and pyramids. Acrobatics will include forward and backward rolls, two person tank rolls, dive rolls and some basic flips and tumbles. Also you will learn to balance sticks and other linear objects. Juggling will teach you hand-eye coordination as well as the process of learning through repetition. It also teaches patience and focus. Juggling will begin with a basic three ball cascade. These steps will be broken down from one to three balls. Other juggling props will then be introduced such as rings, hats, cigar boxes, canes, plates etc.

TH 4115 Intermediate Playwriting
3 credit(s); prereq 3115 or [writing sample, instr consent ];
Instructor: Obolensky, Kira
Description: Student may contact the instructor or department for information.

TH 4322 Acting for the Camera
3 credit(s); prereq 1301 or 3321;
Instructor: Diercks, Shirley V
Description: Student may contact the instructor or department for information.

TH 4380 Creative Collaboration
1-3 credit(s), max credits 12, 4 repeats allowed; prereq Audition, interview, instr consent ;
Instructor: STAFF
Description: Creative Collaboration students will explore multi-disciplinary creation and community building techniques while working together to create an original performance. The class will be led by Maren Ward of Bedlam Theatre, an experimental community based theater located on the West Bank. Well versed in creative collaboration, the Bedlam company has produced a wide range of exciting work including Terminus - a sci-fi extravaganza with revolving cardboard spaceship surrounding the audience, Unhinged - a feminist horror show, and the annual Barebones Halloween Show - a community created outdoor nighttime spectacle of larger than life puppets, originally composed live music, theater, dance and pyrotechnics. Bedlam’s most recent hit, conceived and directed by Ms. Ward, was West Bank Story - an original musical about the West Bank neighborhood. The collaboration class will be following up on some of the connections made during this project and creating a new community based, site-specific performance. Students will have an opportunity to engage in an artistic dialogue with students and guest speakers from the following courses: Place, Politics and Memory (geography), Urban Design, Arts and Social Engagement (visual arts) and Performance and Social Change - (theater arts).

TH 4395 BFA Intensive III
A-F only, 2 credit(s); prereq BFA-acting sr;
Instructor: STAFF
Description: BFA Core Component

TH 4398 BFA Rehearsal and Performance V
A-F only, 2 credit(s); prereq BFA-acting sr;
Instructor: STAFF
Description: BFA Core Component

TH 4399 BFA Rehearsal and Performance VI
A-F only, 2 credit(s); prereq BFA-acting sr;
Instructor: STAFF
Description: BFA Core Component

TH 4532 Makeup for the Actor
2 credit(s);
Instructor: Bundick, Theresa Jane
Description: Student may contact the instructor or department for information.

TH 4550 Video Technology
3 credit(s);
Instructor: Gwinup, Martin Bruce
Description: This course will be an in depth approach to the area of Video Technology. By the end of the course the student 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 field. We will also discuss the specifics of video protocols and formats. The creative discussions in the class will include aesthetics, continuity, and composition. The students understanding of the topics and techniques discussed in this course will culminate in their final project. This course has no pre-requisites and is open to any student on campus who has an interest in video or film production. It is also the gateway into the other video production courses within the department including TH45560 Preproduction for Film/Video, TH5550 Video Project, TH5551 Editing & Postproduction, TH4554 Graphics and Animation for Film/Video, TH4557 Audio for Film/Video, TH5553 Video Production Design and Aesthetics, and TH5554 Multimedia Production for Live Performance. Realize we will meet only 7 Saturdays out of the term.
Style: 30% Lecture, 20% Discussion, 30% Laboratory.

This information is accurate as of 6/9/2008 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.
Demonstration
Grading: 10% mid exam, 15% final exam, 30% special projects, 5% quizzes, 25% laboratory evaluation, 15% problem solving.
Exam Format: Multiple choice, true and false, short answer, definition

TH 4556 Digital Audio and MIDI for Performance
3 credit(s);
Instructor: Gwinup, Martin Bruce
Description: Digital Audio and MIDI for Performance delves into the use and the applications of: digital audio: Digital editing and manipulation MIDI sequencing MIDI programming MIDI as a control language Digital audio and MIDI for performance The students will receive hands on experience in use of sophisticated editing, sequencing, and control software. Some software used is Vegas, ACID, Sonar, and SFX. Projects include destructive and non-destructive editing, digital signal processing, MIDI sequencing, MIDI control, and system analysis and set-up. This course is open to any interested student. Prior experience with audio or MIDI is welcome but not necessary. However a basic understanding of computer operation and file handling is expected.
Style: 50% Lecture, 10% Discussion, 25% Laboratory, 15% Demonstration
Grading: 15% mid exam, 80% special projects, 5% quizzes.

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: Selfert, 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 repeat 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 repeats 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 5117 Performance and Social Change
A-F only, 3 credit(s); prereq Jr or sr or grad student;
Instructor: Kuftinec, Sonja
Description: Performance and Social Change focuses this semester on Community-based theater. This contemporary grassroots movement begins with the belief that theater must directly engage its audience community, working with local participants to embody the community's history, interests and concerns. Critical analysis reflects on how the production process enables community and the ways that individuals negotiate their belonging to groups. Theories of social formation help us to understand how ?community? evolves. Through workshops, presentations, and discussions we will investigate the possibilities and limitations of community-based theater techniques. Critical and practical readings, impassioned debate, and community-based research and practice will dynamize our learning as we explore strategies in the classroom and community, applying them to our own lives and surroundings. The course will proceed through four units that include: 1) community formation and explorations of home/place; 2) Theatre of the Oppressed, in particular the work of Augusto Boal; 3) Storytelling and adaptations, in particular exploring the work of Cornerstone Theater; 4) Site specific performance. The course will meet occasionally with students in Art and Social Engagement and Place, Politics, and Memory with invited guests. Students will develop final projects that have a performance-based and theoretically reflective component. This class is targeted towards advanced undergraduate and graduate students.
Style: 10% Lecture, 45% Discussion, performance workshops;As embodied learning exemplifies the pedagogical approach of this activist course, students will research contemporary, local and historical projects as well as create their own.
Grading: 25% reports/papers, 25% special projects, 25% in-class presentation, 25% class participation.

TH 5178 History and Theory of Performance Conventions
A-F only, 3 credit(s); prereq [3122, [3171 or 3172]] or grad student;
Instructor: Garcia, Cindy
Description: Student may contact the instructor or department for information.

TH 5182 Contemporary Black Theatre: 1960-Present
3 credit(s); Credit will not be granted if credit has been received for: AFRO 5182;
Instructor: Bellamy, Louis Richard
Description: During the Fall Semester 2002, Contemporary Black Theatre will, after introduction to the Black Arts movement and representative plays by Lorraine Hansberry and Amiri Baraka, concern itself with the plays of two authors who have elected to represent the human condition through the African American ethos in cycle plays: Ed Bullins and August Wilson. One, or both of the authors will discuss their work in class. Both authors will be in residence for public symposia sponsored by the University of Minnesota and Penumbra Theatre. The class presents the rare opportunity to engage in guided intellectual discussion and to view plays written by August Wilson and produced by Penumbra Theatre. Penumbra Theatre enjoys national prominence for its critically acclaimed interpretation of Mr. Wilson?'s work and will present "Joe Turner?'s Come and Gone., "Two Trains Running., "Seven Guitars,;" and "King Hedley II" during its 2002-03 season. For more information, contact Lou Bellamy (651) 290-8681. (limit 20 students)

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 repeats allowed; prereq 3515, instr consent, dept consent;
Instructor: STAFF
Description: Individual projects in production of approved plays as a designer for scenery/properties, costumes, lighting or sound.
Style: 100% Laboratory.
Grading: 100% other evaluation. final production and prep work

TH 5520 Scene Design
3 credit(s), max credits 9, 3 repeats allowed; prereq 3515 or grad or instr consent;
Instructor: Brockman, C Lance
Description: Scene design is a course that focuses on the visual environments created for the stage. Students will work to perfect skills in interpreting scripts, refining design choices, and representing design ideas for the stage. This course can be repeated and the first level is focused on developing sculptural space. The second level is about creating two-dimensional or lyrical space for opera and musicals. As in a professional design studio, these two levels are taught concurrently. Developing skills in visual representation and collaborative communication are the focus of the projects for this course.

TH 5540 Lighting Design for the Theatre
3 credit(s); max credits 9, 3 repeats allowed; prereq 3515 or grad or instr consent;
Instructor: Montgomery, Jean A  
Description: This course covers the theory and principles of theatre lighting design. Class format is lecture, discussion, and practical laboratory. Students will have the opportunity to participate in their own experiments in color and design theory. There are also guest lighting designers from the mainstage season of the University Theatre who lead demonstrations of their designs for actual productions for various stage forms. Students will develop a light plot and paperwork for at least one lighting design for the theatre of their choice in Rarig Center. For non-theater majors, there are alternatives to this requirement, discussable with the instructor. The use of computers in lighting design and paperwork will be discussed and practical experience in using computers for this part of the design is available as part of the course. Undergraduates with a theater design background (Th 3515), graduate/upper level students with an architecture or art background interested in lighting would be welcome. Note: Section 2 is a practical extension of the coursework covered in Section 1. It is intended for students who have already completed Section 1 in a previous semester. Course content is developed to meet the lighting design interests of the class participants.

TH 5558 Audio Systems Analysis and Installation
3 credit(s); prereq 4555 or instr consent; 
Instructor: Gwinup, Martin Bruce  
Description: This course will offer the student experience in analyzing, designing, developing specifications, and installing sound systems. They will work from clients program lists, within given resources, and with given spaces. From this they will arrive at the best possible audio system within those parameters. This course will include hands on experience. The class will work as a group or a couple of groups and be assigned a specific project to complete. Each student will have a chance to experience all of the different aspects of the topic. At the end of the project they will turn in all pertinent paperwork (i.e. budget sheets, sketches, drafting, purchasing documents, schematics,..). They will be evaluated by this paperwork as well as their participation in the course discussions and practical applications. This course is designed to take the students to the next level of audio technology. Move them from operation to assembling and installing systems. The student will learn the concepts of room and space acoustics, wiring systems for audio, system chains, power/impedance matching, and gain structure. 
Style: 30% Lecture, 30% Discussion, 40% Laboratory. 
Grading: 10% reports/papers, 40% special projects, 10% in-class presentation, 10% class participation, 20% laboratory evaluation, 10% problem solving.

TH 5559 Sound Design for Performance  
3 credit(s); prereq 4555 or instr consent; 
Instructor: Gwinup, Martin Bruce  
Description: Sound Design covers many areas. We will look specifically at the areas of Sound Design as it relates to live performance. We will explore topics such as psychoacoustics, audience response, spatial acoustics, music history/research, and sound manipulation. The students will be expected to utilize the departmental sound recording studio to create sounds and sound designs. We will also discuss and explore approaches to sound design both from scripted works as well as created works. 
Style: 30% Lecture, 30% Discussion, 20% Laboratory. 
Grading: 15% reports/papers, 30% special projects, 15% in-class presentation, 10% class participation, 30% other evaluation. Final Design project

TH 5560 Drawing, Rendering, and Painting for the Theatre Designer II  
3 credit(s); prereq 5510; 
Instructor: Lefebvre, Mathew James  
Description: Student may contact the instructor or department for information.

TH 5570 Properties/Scenery Technology  
1-3 credit(s); max credits 15, 15 repeats allowed; prereq 3515 or grad or instr consent; 
Instructor: Brockman, C Lance  
Description: This section of 5570 is specifically for Scene Painting: The Historical Method. Students will learn the basics of illusionary painting and how to create faux finishes and trompe l’oeil consistent with methods of Victorian scenic artist. Students will work through a series of projects that include sight-sizing, value study, and color manipulation. Advance students will participate on large-scale projects for the Minnesota Centennial Showboat. Instructor’s permission is required. 
Style: 100% Laboratory. 
Grading: 100% laboratory evaluation.

TH 5570 Properties/Scenery Technology  
1-3 credit(s); max credits 15, 15 repeats allowed; prereq 3515 or grad or instr consent; 
Instructor: Henry, Brent A  
Description: StageCraft: We will be investigating the issues that are involved in the construction and the rigging of scenery. 
Style: 75% Lecture, 25% Laboratory.

TH 5580 Costume Technology  
3 credit(s); max credits 15, 5 repeats 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 repeats 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 costuem, lighting, makeup, props, scenery, sound, or theatre management.

TH 5718 Principles of Arts Management  
3 credit(s); prereq instr consent; 
Instructor: Hansen, Kathleen Louise  
Description: This course is designed to provide an overview of the structure in which non-profit arts organizations are based. Topics of inquiry include, but are not excluded to, organizational concept, mission, structure, budgetary considerations and financial planning, marketing, and development (fundraising, grant writing, board relations) strategies. Class assignments include: assigned readings, from both the required text and supplemental readings as provided by your instructor; Class Evaluations include: the analysis and discussion of case studies, from both printed and on-line resources.(20%); participation within class discussions with guest professionals from the Twin Cities arts community. (20%); attendance at field trips to professional arts organizations (part of 20% above); mid-term conference (10%); final project presentation (50%). Graduate students and upper-level undergraduate students who are exploring arts management through journalism (PR), business, public policy and affairs, all arts disciplines are encouraged to take this course. BIS, IDIM, MLS and MPA and Non-Profit Management degrees are particularly good fits for this course. 
Style: 30% Lecture, 50% Discussion. in class exercises and in-class presentations as provided by your instructor; Class 
Grading: 100% participation in class discussions with guest professionals from the Twin Cities arts community. (20%).

TH 5760 Advanced Stage Management  
2-3 credit(s), max credits 3, 1 repeat allowed; prereq 5716 or concurrent enrollment 5716, instr consent; [4 cr for undergrads]; 
Instructor: Montgomery, Jean A  
Description: The course is a practical extension of TH 5716. You would participate as part of the stage management team on a production during this year's University Theatre season or, in rare cases, on a special project arranged with the instructor. 
Style: Practical lab 
Grading: 100% special projects.

TH 5780 Advanced Topics in Arts Management
2-4 credit(s), max credits 8, 4 repeats allowed; prereq 5718; Instructor: Horejsi, Brooke
Description: Student may contact the instructor or department for information.

TH 5993 Directed Study
1-5 credit(s), max credits 20, 20 repeats allowed; prereq 6 Th cr, instr consent, dept consent, college consent; Instructor: STAFF
Description: Guided individual reading or study.

TH 8112 History and Theory of Western Theatre: Medieval Through Renaissance
3 credit(s); Instructor: Kutluinec, Sonja
Description: Student may contact the instructor or department for information.

TH 8950 Topics in Theatre
1-4 credit(s), max credits 8; Instructor: Lelebvre, Mathew James
Description: Student may contact the instructor or department for information.

Toxicology
244 Veterinary Diagnostic Lab

TXCL 5000 Directed Research in Toxicology
A-F only, 1-4 credit(s), max credits 16, 16 repeats allowed; prereq instr consent; Instructor: Murphy, Michael J
Description: Student may contact the instructor or department for information.

TXCL 5545 Introduction to Regulatory Medicine
A-F only, 2 credit(s); prereq Grad student or instr consent; Credit will not be granted if credit has been received for: CVM 6545; Instructor: Murphy, Michael J
Description: Student may contact the instructor or department for information.

Translation and Interpreting
215 Nolte Center

TRIN 5993 Directed Study
1-3 credit(s), max credits 3, 1 repeat allowed; Instructor: Bogoslaw, Laurence Hersche
Description: Student may contact the instructor or department for information.

TRIN 5993 Directed Study
1-3 credit(s), max credits 3, 1 repeat allowed; Instructor: Downing, Bruce T
Description: Student may contact the instructor or department for information.

Turkish
214 Nolte Center

TURK 1002 Beginning Turkish II
5 credit(s); prereq 1001; Credit will not be granted if credit has been received for: TURK 4002; Instructor: Colak, Zuleyha
Description: Student may contact the instructor or department for information.

TURK 3002 Intermediate Turkish II
5 credit(s); prereq 3001 or instr consent; Credit will not be granted if credit has been received for: TURK 4004; Instructor: Colak, Zuleyha
Description: Student may contact the instructor or department for information.

TURK 4002 Beginning Turkish II
3 credit(s); prereq [4001, 4th sem course in another language] or grad student; Credit will not be granted if credit has been received for: TURK 1002; Instructor: Colak, Zuleyha
Description: Student may contact the instructor or department for information.

TURK 4004 Intermediate Turkish II
3 credit(s); prereq [4003, 4th semester course in another language] or grad student; Credit will not be granted if credit has been received for: TURK 3002; Instructor: Colak, Zuleyha
Description: Student may contact the instructor or department for information.

University College
150 Wesbrook Hall

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. Texts will be available at the Coffman Bookstore.

UC 4001 Professional Practice of Addictions Counseling
A-F only, 4 credit(s); prereq Adds student, instr consent; Instructor: Van Cleve, Michael
Description: Core addictions counseling functions including clinical assessment, case management, documentation treatment planning, and ethical issues. Students begin process of securing internship.

UC 4002 Internship in Substance Abuse Counseling I
S-N only, 2-8 credit(s), max credits 8, 4 repeats allowed; prereq Adds 4001, Adds student, instr consent; Instructor: Rohovit PhD, Julie Lynn
Description: Student may contact the instructor or department for information.

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 Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive; Instructor: Pentel, Paula R
Description: 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

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fieldwork and is writing intensive (3 cr.). Taught fall and spring.

**Style:** 60% Lecture, 10% Film/Video, 10% Discussion, 5% Small Group Activities, 5% Guest Speakers. Per Semester: Approximately 4-5 hours of fieldwork. Approximately 4-5 hours of computer mapping.

**Grading:** 30% final exam, 30% reports/papers, 30% special projects, 10% other evaluation. Other Evaluation: In class discussion/small group activities

**Exam Format:** Blue Book-Essay Format

**URBS 3001W Introduction to Urban Studies: The Complexity of Metropolitan Life**

A-F only, 3 credit(s); prereq =1001; Meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive;

**Instructor:** Pentel, Paula R

**Description:** 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 fall and spring.

**Style:** 60% Lecture, 10% Film/Video, 10% Discussion, 5% Small Group Activities, 10% Field Trips, 5% Guest Speakers.

**Grading:** 30% final exam, 35% reports/papers, 25% reflection paper, 10% other evaluation. Other Evaluation: In class discussion/small group activities

**URBS 3002 Urban Studies Colloquium**

A-F only, 1 credit(s), max credits 4, 4 repeats allowed;

**Instructor:** Pentel, Paula R

**Description:** Sec 001 Financing Affordable Housing 06:00 P.M. - 08:00 P.M. T (01/22/2008 - 03/16/2008), 1 credit. This course will focus on municipal and state approaches to affordable housing development, preservation, and finance. Technical, monetary, and ideological perspectives of the public sector and its for- and non-profit partners will be explored, as will the attitudes and tendencies of the communities they serve. The class will include introductions to the financing programs so critical to these efforts. Case studies on agency budgeting, trends, and programmatic approaches will be used and analyzed. Jonathan Stanley, a graduate of the Urban Studies Program, earned an MA in Urban and Regional Planning from the University of Pennsylvania, and worked in affordable housing at the New York City Department of Housing Preservation & Development (HPD). He now works for Minnesota Housing, one of the major sources of financing for affordable housing.

**Instructor:** Pentel, Paula R

**Description:** Sec 002 Urban Studies Colloquium 06:00 P.M. - 08:00 P.M. Th (03/24/2008 - 05/09/2008), 1 credit. When the historic preservation movement began, the marketplace underestimated historic buildings? economic value. That pattern has since shifted -- perhaps too much? This class will survey the challenge of the preservation movement: from the role of city governments to the growing professionalism of volunteer citizen groups; how some adversarial developers became preservation good guys; and how today's changing patterns of development may need a changed vision by those who care about saving the historic fabric of our cities. Bob Roscoe served many years on the Minneapolis HPC, often as its chair.

**Instructor:** Pentel, Paula R

**Description:** Sec 003 Creating the Public Good 06:00 P.M. - 08:00 P.M. Th (01/22/2008 - 03/16/2008), 1 credit. What are nonprofits, and why do they exist? What role do foundations and corporate giving programs play in the ecology of the local community? What strategies can be employed to direct public opinion, and influence decision makers? Such questions will be explored in this colloquium. Students will use case studies to explore what it takes to write a successful grant proposal, how public opinion can be shaped, and the elements of grass roots campaigning. Tom Trow consults for nonprofit organizations in the areas of community relations, media relations, legislative relations and organizational planning. Formerly Director of Community and Cultural Affairs for CLA, he has co-founded 4 nonprofits and served on the Board of Directors of many more. He is currently creating documentary programs in partnerships between Minnesota nonprofits and Twin Cities Public Television.

**URBS 3500 Urban Studies Workshop**

A-F only, 3 credit(s), max credits 9, 3 repeats allowed; prereq instr consent;

**Instructor:** STAFF

**Description:** URBS 3500 Urban Studies Workshops sec -001 Urban Preservation Issues. 06:00 P.M. - 09:00 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), Blegen 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 these fundamentals in simulated real estate developments in a chosen Twin Cities neighborhood. The class will have a chance to explore high profile, ongoing Twin Cities? development(s) through site visit(s). Students must have or be willing to develop a basic comfort with spreadsheets (Microsoft Excel), and must be open to learning more about financial analysis, a critical fundamental language of urban development. Pat Connolly was a housing specialist for CommonBond Housing, and is now the director of housing development for Lutheran Social Services.

**URBS 3751 Understanding the Urban Environment**

A-F only, 3 credit(s); Meets CLE req of Environment Theme;

**Instructor:** Pentel, Paula R

**Description:** Where is nature in the city? Ecological function? Students will examine links between cities and the environment with an emphasis on air, soil, water, pollution, parks, public space, sustainability, and environmental justice, among others. We will examine the interplay of the environment, technology, scientific knowledge, and culture/politics in this wide-ranging course. Students are required to complete one field trip. Ms Pentel is a City Council member for the City of Golden Valley and a PhD candidate in Geography.

**Style:** 50% Lecture, 25% Discussion.

**Grading:** 25% final exam, 10% reports/papers, 40% quizzes, 5% in-class presentation, 10% class participation, 10% other evaluation. Fieldtrip reaction paper

**Exam Format:** multiple choice and short answer

**URBS 3771 Fundamentals of Transit**

A-F only, 3 credit(s);

**Instructor:** Pentel, Paula R

**Description:** Transportation is a fundamental characteristic of urban systems. Participation in the variety of activities available in the urban environment requires movement; transportation provides the means to move from one place to another. Urban...
transit, as one of the forms of urban transportation, has unique characteristics that need to be understood by the urban planner. This course is not simply a justification for transit. This course will focus on all aspects of the delivery of transit services, including funding, service planning, facility design and implementation. Special emphasis will be placed on the types of transit services available and matching services to the market. This includes regular route bus, heavy rail, light rail, commuter rail, bus rapid transit, personal rapid transit, and demand responsive services. While there will be extensive discussion of the Twin Cities, students will be exposed to a variety of transit services and technologies not available in the Twin Cities.

URBS 3900 Urban Studies Internship Seminar
A-F only, 2 credit(s); max credits 4; prereq Sr, internship placement, dept consent, instr consent;
Instructor: Pentel, Paula R
Description: This weekly seminar integrates a student's internship experience with their academic program. This course is appropriate for any student completing an internship that has an urban focus. Students must have their internships secured prior to the beginning of the term, and must speak to Paula Pentel prior to registering. The course has five short assignments designed to have the students reflect critically on their internship experience. Additionally, a journal is required. Class discussions are held around the assignments and some are student-led discussions.
Style: 10% Lecture, 90% Discussion.

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. Ed Goetz and Paula Pentel

URBS 3993 Urban Studies Directed Study
A-F only, 2-3 credit(s), max credits 6, 3 repeats 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: MCB 3301;
Instructor: Maheswaran, Samuel K
Description: Student may contact the instructor or department for information.

Veterinary Clinical Sciences

C-339 Veterinary Teaching Hospital

VCS 4606 Small Animal Management
A-F only, 3 credit(s);
Instructor: Christopher DVM, Karin S
Description: Student may contact the instructor or department for information.

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 repeat allowed;
Instructor: Bender, Jeff Blaine
Description: Student may contact the instructor or department for information.

VMED 5090 Seminar: Veterinary Epidemiology
S-N only, 1 credit(s), max credits 3, 3 repeats allowed; prereq Veterinary Medicine grad student;
Instructor: Deen, John
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 5211 Advanced Large Animal Physiology II
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed; prereq instr consent; 5210 recommended;
Instructor: Malone, Erin

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

VMED 5232 Comparative Clinical Veterinary Dermatologic Pathology
S-N only, 1 credit(s), max credits 2; prereq DVM degree or foreign equiv;
Instructor: Torres, Sheila Mello
Description: Student may contact the instructor or department for information.

VMED 5241 Advanced Small Animal Pathobiology II
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 5243 Advanced Small Animal Pathobiology IV
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 5293 Directed Studies in Comparative Medicine and Pathology
A-F only, 1-4 credit(s), max credits 8; prereq Grad student, instr consent;
Instructor: Carlson, Cathy Sue
Description: Student may contact the instructor or department for information.

VMED 5295 Problems in Large Animal Clinical Medicine/Surgery and Theriogenology
A-F only, 1 credit(s), max credits 3, 3 repeats 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 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: Malise, Ilze
Description: Student may contact the instructor or department for information.

VMED 5380 Veterinary Diagnostic and Comparative Pahtology
A-F only, 2 credit(s), max credits 4; prereq [DVM/VMD or equiv degree] from a foreign institution, instr consent; [resident or grad student] in [veterinary anatomic or clinical pathology];
Instructor: O'Brien, Timothy David
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 5420 Molecular Epidemiology of Infectious Disease
A-F only, 3 credit(s); prereq Basic course in microbiology;
Instructor: Sreevatsan, Srinand
Description: Student may contact the instructor or department for information.

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.

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 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: Student may contact the instructor or department for information.

VMED 5910 Grant Writing: What Makes a Winning Proposal?
S-N only, 1 credit(s); Credit will not be granted if credit has been received for: CMB 5910;
Instructor: Rutherford, Mark Stephen
Description: Student may contact the instructor or department for information.

VMED 8195 Pre-Harvest Food Safety and Public Health
Aspects of Food Animal Production
1-3 credit(s), max credits 3, 1 repeat allowed;
Instructor: Davies, Peter Robert
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 repeat 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 repeat 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 repeat allowed; prereq instr consent;
Instructor: Osborne, Carl A
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 repeat 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 repeat allowed; prereq instr consent;
VMED 8292 Journal Club: Large Animal Internal Medicine
A-F only, 1 credit(s), max credits 3, 3 repeats 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 repeat allowed; prereq instr consent;
Instructor: Lulich PhD, Jody P
Description: Student may contact the instructor or department for information.

VMED 8294 Research Studies in Nephrology and Urology
1-3 credit(s), max credits 3, 1 repeat allowed; prereq instr consent;
Instructor: Osborne, Carl A
Description: Student may contact the instructor or department for information.

VMED 8393 Medical Conference
A-F only, 1-3 credit(s), max credits 6, 6 repeats allowed;
Instructor: Ames DVM, Trevor Richmond
Description: Student may contact the instructor or department for information.

VMED 8394 Research in Veterinary Medicine
1-3 credit(s), max credits 3, 1 repeat allowed; prereq instr consent;
Instructor: Osborne, Carl A
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 repeats allowed; prereq DVM student, vet med student, instr consent;
Instructor: Ames DVM, Trevor Richmond
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 8494 Research in Infectious Diseases
1-3 credit(s), max credits 3, 1 repeat 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 8593 Advanced Veterinary Virology and Serology
1-3 credit(s), max credits 3, 1 repeat allowed;
Instructor: Joo, Han Soo
Description: Student may contact the instructor or department for information.

VMED 8682 Advanced Large Animal Surgery
A-F only, 1-3 credit(s), max credits 6, 6 repeats allowed; prereq DVM or equiv degree, instr consent;
Instructor: Malone, Erin
Description: Student may contact the instructor or department for information.

VMED 8688 New Techniques in Large Animal Surgery
A-F only, 1-6 credit(s), max credits 6, 1 repeat allowed; prereq DVM or equiv degree, instr consent;
Instructor: Malone, Erin
Description: Student may contact the instructor or department for information.

VMED 8691 Research in Large Animal Surgery
A-F only, 1-6 credit(s), max credits 6, 1 repeat allowed; prereq DVM or equiv degree, instr consent;
Instructor: Malone, Erin
Description: Student may contact the instructor or department for information.

VMED 8692 Seminar: Small Animal Surgery
A-F only, 1 credit(s);
Instructor: Wallace, Larry J
Description: Student may contact the instructor or department for information.

VMED 8693 Seminar: Large Animal Surgery
A-F only, 1 credit(s), max credits 6, 6 repeats allowed; prereq DVM or equiv degree, instr consent;
Instructor: Malone, Erin
Description: Student may contact the instructor or department for information.

VMED 8789 Research in Avian Clinical Problems and Procedures
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed; prereq DVM, instr consent;
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 repeat allowed; prereq 8781 or equiv, SACS 5380 or equiv;
Instructor: Quandt, Jane Ellen
Description: Student may contact the instructor or department for information.

VMED 8792 Seminar: Veterinary Radiology
1 credit(s), max credits 6, 6 repeats allowed;
Instructor: Feeney, Daniel A
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 repeat allowed; prereq [CVM 6321 or equiv], DVM degree;
Instructor: Graham DVM, Lynelle
Description: Student may contact the instructor or department for information.

VMED 8794 Research in Veterinary Radiology
1-3 credit(s), max credits 3, 1 repeat allowed;
Instructor: Feeney, Daniel A
Description: Student may contact the instructor or department for information.

VMED 8795 Problems: Veterinary Radiology
1-3 credit(s), max credits 6, 6 repeats allowed;
Instructor: Feeney, Daniel A
Description: Student may contact the instructor or department for information.

VMED 8796 Avian Anesthesia and Orthopedic Surgery
A-F only, 1-3 credit(s), max credits 3, 1 repeat allowed; prereq courses in vet anesthesia, vet small animal orthopedics; Instructor: Redig, Patrick Thomas
Description: Student may contact the instructor or department for information.

Veterinary Population Medicine

VPM 3700 Equine Reproduction and Breeding Management
A-F only, 2 credit(s); prereq AnSc 3305 recommended; Instructor: Madill, Scott
Description: Student may contact the instructor or department for information.

Vietnamese

VIET 1016 Accelerated Intermediate Vietnamese
5 credit(s); prereq 1015 or instr consent; Instructor: Dang, Nhat Thong
Description: This course is the second of a two semester sequence of beginning Vietnamese: it is for heritage students and those who experienced wuth the languages and have some basic Vietnamese language skills in listening, speaking, reading, and writing. Those who did not take the first course should have the instructor's permission before taking the class. The learners will be able to speak, read and write simple sentences, and to understand short paragraphs and stories related to everyday life activities and some notions of history and culture of Vietnam.
Style: 50% Lecture, 20% Discussion.
Grading: 25% final exam, 8% reports/papers, 40% quizzes, 7% class participation, 20% other evaluation, homework
Exam Format: multiple choice, questions/answers, matching, fill in the blank, dictation, spelling.

Water Resources Science

173 McNeal Hall

WRS 8100 Interdisciplinary Seminar in Water Resources
0.5-3 credit(s), max credits 3, 3 repeats allowed; Instructor: Nieber, John Little
Description: Student may contact the instructor or department for information.

WRS 8581 Research and Professional Ethics in Water Resources and Environmental Science
S-N only, 0.5 credit(s); prereq [Environmental engineering or water resources science] grad student or instr consent; Credit will not be granted if credit has been received for: CE 8442;
Instructor: Novak, Paige J
Description: Student may contact the instructor or department for information.

Work and Human Resource Education

WHRE 5001 Survey: Human Resource Development and Adult Education
3 credit(s);
Instructor: Peterson, Shari L
Description: Student may contact the instructor or department for information.

WHRE 5628 Multimedia Presentations in Business
3 credit(s); prereq 5011 or equiv;
Instructor: Anderson, Michelle M
Description: Student may contact the instructor or department for information.

WHRE 5661 Instructional Methods for Business and Industry
2 credit(s); prereq credit will not be granted if credit received for: HRD 5661 or BIE 5661; Credit will not be granted if credit has been received for: HRD 5661;
Instructor: Stiertz, Tom
Description: Student may contact the instructor or department for information.

WHRE 5698 Teaching Internship
3-8 credit(s), max credits 8, 1 repeat allowed; prereq Admission to initial licensure program;
Instructor: Westrom, Lyle Emil
Description: Student may contact the instructor or department for information.

WHRE 5901 Using Research in Work and Human Resource Education
3 credit(s);
Instructor: Peterson, Shari L
Description: Student may contact the instructor or department for information.

WHRE 5993 Directed Study in WHRE
1-4 credit(s), max credits 4, 4 repeats allowed;
Instructor: Stiertz, Tom
Description: Student may contact the instructor or department for information.

WHRE 8001 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.
Writing Studies

WRIT 1152W Writing on Issues of Science and Technology
A-F only, 4 credit(s); prerequisite exemption from 1101 or equiv.; meets CLE req of Citizenship/Publi Ethics Theme; meets CLE req of Writing Intensive;
Instructor: STAFF
Description: Ethical, social, and political challenges created by science/technology. Analyzes persuasion strategies through which experts, political decision-makers, and citizens meet these challenges. Bioscience controversies such as cloning, organ transplantation. Controversies over pollution, ozone depletion.

WRIT 1201 Writing Studio
A-F only, 4 credit(s); prerequisite exemption from 1101 or equiv.; meets CLE req of Citizenship/Publi Ethics Theme; meets CLE req of Writing Intensive;
Instructor: Nichols, Capper
Description: WRIT 1201 introduces students to general writing strategies encountered at the college level. Through frequent practice and feedback, students learn to see writing as a tool for learning and a vehicle for expression of ideas and informed views. Students also learn a working vocabulary for discussing writing. Typical assignments include informal writing derived from personal experience, response to readings, analysis and evaluation of sources on the web and in print, and formal papers that increasingly make use of sources as well as close reading of texts. The course is taught in a computer classroom, where the active practice of writing, from gathering ideas for a paper, through the drafting of papers, to careful editing can develop most fruitfully. Some sections are designated for non-native speakers and are joined to other learning community courses. This course does NOT meet the first-year writing requirement.
Style: 10% Lecture, 15% Discussion. Instructor-directed practice of writing related to papers
Grading: 30% mid exam, 30% final exam, 20% reports/papers, 20% class participation.
Percentages may vary slightly by section. Class participation includes required in-class writing.

WRIT 1315 The Land in American Experience
3 credit(s); meets CLE req of Cultural Diversity Theme; meets CLE req of Other Humanities Core;
Instructor: Russell, Chris
Description: Land in America as idea and as actual space. History of cultural values and the meanings land holds for us. Contrasting views of land, especially those of certain Native American peoples. Rise of the conservation movement and the urbanization of U.S. space.
Grading: 30% mid exam, 30% final exam, 20% reports/papers, 20% class participation.
ENGC 1015, ENGC 1016, RHET 1101; Credit will not be granted if credit has been received for: WRIT 1101; 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 craft focused thesis statements that articulate a clearly reasoned position and use credible evidence to support a sustained argument. Through guided practice, students refine their control over focus, organization, style, diction, and grammar, and use 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 3029W Professional Writing
3 credit(s); prereq Daily access to e-mail; Credit will not be granted if credit has been received for: ENGL 3029W; Meets CLE req of Writing Intensive; Instructor: Gurak PhD, Laura J
Description: Student may contact the instructor or department for information.

WRIT 3221W Communication Modes and Methods
4 credit(s); prereq 1101 or 1152 or ENGC 1101 or equiv Credit will not be granted if the student has already completed RHET 3221W; Meets CLE req of Citizenship/Public Ethics Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; Instructor: Russell Chris
Description: Student may contact the instructor or department for information.

WRIT 3257 Scientific and Technical Presentations
3 credit(s); prereq COMM 1101 or instr consent; Instructor: STAFF
Description: Oral presentation skills for scientific or technical topics. Visual communication, audience analysis, organizing a presentation, presenting complex material. Emphasizes use of computers.

WRIT 3270 Special Topics
1-3 credit(s), max credits 3, 1 repeat allowed; Instructor: Bruch Jr, Patrick Leonard
Description: Student may contact the instructor or department for information.

WRIT 3291 Independent Study
1-3 credit(s), max credits 3, 1 repeat allowed; prereq instr consent, dept consent; Instructor: STAFF
Description: Student may contact the instructor or department for information.

WRIT 3291 Independent Study
1-3 credit(s), max credits 3, 1 repeat allowed; prereq instr consent, dept consent; Instructor: Volpe, Angelo V
Description:

WRIT 3302 Science, Religion, and the Search for Human Nature
3 credit(s); Meets CLE req of Other Humanities Core; Instructor: Nichols, Capper
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); Meets CLE req of Citizenship/Public Ethics Theme; meets CLE req of Literature Core; Instructor: STAFF
Description: Analysis of literature (fictional, nonfictional) of social movements in the United States in last half of 20th century. Artistic truth in relation to historical truth. Roles/obligations of citizens to protest/change social structures.

WRIT 3361 Literature of Social Movements in the United States: 1950 to 2000
A-F only, 3 credit(s); Meets CLE req of Citizenship/Public Ethics Theme; meets CLE req of Literature Core; 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 rhetorical 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 LE 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 ideals 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?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 decision-making. Thus, course discussion and the take-home exams allow students to reflect upon the features of responsible citizenship.

WRIT 3371 Technology, Self, and Society
A-F only, 3 credit(s); prereq [Jr or sr]; Meets CLE req of Citizenship/Public Ethics Theme; meets CLE req of Historical Perspective Core; Instructor: Logue, John
Description: Student may contact the instructor or department for information.

WRIT 3562W Technical and Professional Writing
A-F only, 4 credit(s); prereq [1101 or 1152W or EnGC 1101 or equiv], [Jr or sr]; Meets CLE req of Writing Intensive; Instructor: STAFF
Description: Written/oral communication in professional settings. Gathering information, analyzing audience, assessing conventional formats. Drafting, testing, revising documents. Oral presentation of final reports.

WRIT 3701W Rhetorical Theory for Scientific and Technical
WRIT 4196 Internship in Scientific and Technical Communication
S-N only, 3 credit(s); prereq STC major, instr consent
Instructor: STAFF
Description: Student may contact the instructor or department for information.

WRIT 4431 Intersections of Scientific and Technical Communication and Law
A-F only, 3 credit(s); prereq [3562W, Jr or Sr or grad student] or instr consent
Instructor: Schuster, Mary Lay
Description: This course introduces students to the areas of the law that are relevant to scientific and technical communication, although students from all majors are welcome. These areas of the law include intellectual property, privacy, and health law. Students will read opinions and decisions in landmark and current cases to see what values, precedents, and issues arise. The course is designed to address the needs of students who seek employment in industry and government where knowledge of legal issues is important and students who wish to go on to law school. Students will be able to pursue as project of their choice.
Style: 100% Discussion.

WRIT 4501 Usability and Human Factors in Technical Communication
3 credit(s); prereq Sr or grad student or instr consent
Instructor: Breuch, Lee-Ann Kastman
Description: Principles/concepts of human factors/usability testing. Developing objectives, criteria, and measures. Conducting tests in lab, field, and virtual environments. Using software programs to analyze qualitative/quantitative data. Lab fee of $36 required for use of the Usability Services Laboratory to conduct usability projects.

WRIT 4561 Editing and Style for Technical Communicators
3 credit(s); prereq [3562W, [STC major or grad student]] or instr consent
Instructor: STAFF
Description: Editorial process, style, and ethics for technical subjects. Practice editing skills, cohesion, clarity, coherence, organization, and target audiences for print and online documents. Learn about the writer-editor relationship, mark-up language, electronic editing methods, techniques for editing illustrations and Web content, and copyright issues.

WRIT 5196 Internship in Scientific and Technical Communication
S-N only, 3-6 credit(s), max credits 6, 1 repeat allowed; prereq STC grad or instr consent
Instructor: STAFF
Description: Student may contact the instructor or department for information.

WRIT 5671 Visual Rhetoric
A-F only, 3 credit(s); prereq Jr or Sr or grad student
Instructor: Gross, Alan G
Description: Student may contact the instructor or department for information.

WRIT 5777 Rhetoric of Science
A-F only, 3 credit(s);
Instructor: Gross, Alan G
Description: Student may contact the instructor or department for information.

WRIT 8510 Topics in Rhetorical Theory, History, and Criticism
A-F only, 3 credit(s), max credits 12, 4 repeats allowed; prereq 5775 or equiv;
Instructor: Graff, Richard J
Description: Topic: "Rhetorical Stylistics" This seminar will consider multiple perspectives on the study of style, focusing on the development of stylistics as a method of descriptive and critical analysis. Brief consideration of the place of style in the history of rhetoric will introduce some of the major stylistic categories and technical vocabulary necessary for understanding more recent developments in style theory. Readings and discussion will then focus especially on introducing, comparing, and assessing different modes of "functional" stylistic analysis -- "functional" designating the study of verbal style in its capacity to achieve ends (e.g., persuasion) or to work effects on receivers of discourse. Readings will be taken primarily from the fields of rhetorical studies and literary stylistics.

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 the 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? work, on your vocational 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?
youth have lived its content, thought about it, and may 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 2101 Urban Youth and Youth Issues**

4 credit(s); prereq 1001 or instr consent; Instructor: Ross PhD, Terrance Kwame

**Description:** Urban youth are the subjects and objects of adult (and youth) interest and concern, and this is found in movies, television, magazines and on the internet; it is heard in music and seen in clothing; it is part of the $500,000,000,000,000 yearly expenditure on advertising and merchandising, much of it directed at (pre)teens. This too we attend to. But most basic to our inquiry is what it is like to do ?young person? in a city and to be a young person in a city, in the United States and worldwide. What are the everyday lives of teenagers, as these vary by historical period, neighborhood, social class, race/ethnicity, sex, and the like, and what do their lives and their ways mean to these youth? that is our major concern: How do they go about their youthness? that is our question. And what sense do adults make of them? that is our second concern. The course title includes the words ?youth issues.? This does not mean ?problems;? rather, it refers both to topics of our interest and scholarship, on the one hand, and, on the other, to what is of interest to particular groups of adults (and youth), at a specific moment/place. All of this is important because there is theory and some evidence that ?the youth questions/youth problem? is a persistent cultural discourse which is used regularly when local conditions are of a certain type and magnitude, such as changes in adult life-circumstances. That is, there are long-time folk and professional ways of thinking and talking about young people, especially so as ?problems,? that are used at certain moments of social tension/confusion, almost regardless of the actual situation/condition of young people in that area and at that moment. This too we must study and understand. A ?youth issue? is not (necessarily) a ?youth problem,? while youth as such are often an issue to adults. We use the word issue in the course title to open up this reticulum of, yes, issues. All of this and more are the substance of this course about youth in cities, here and internationally. It is not a course only about kids on the streets, kids of the streets, teen gangs, prostitution, and the like. It is this, but more; it is about the reality that most young people in the United States and the world are ?city kids? and it is our obligation to understand them in situ, in their terms and ours, and to respond to their call to become adults in ways caring, safe, decent and just.

**Style:** 10% Lecture, 10% Film/Video, 20% Discussion, 15% Small Group Activities, 20% Student Presentation, 15% Field Trips, 10% Guest Speakers.

**Grading:** 25% special projects, 25% reflection paper, 25% class participation, 25% other evaluation. Other Evaluation: Field visits.

**YOST 3031 International Youthwork**

A-F only, 3 credit(s); prereq 2xxx or instr consent; Credit will not be granted if credit has been received for: YOST 5031; Instructor: VeLure Roholt, Ross Ronald

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

**YOST 3291 Independent Study in Youth Studies**

1-8 credit(s), max credits 8, 1 repeat allowed; prereq instructor consent; Instructor: VeLure Roholt, Ross Ronald

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

**YOST 3291 Independent Study in Youth Studies**

1-8 credit(s), max credits 8, 1 repeat allowed; prereq instructor consent; Instructor: Kimball, Lisa

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

**YOST 3291 Independent Study in Youth Studies**

1-8 credit(s), max credits 8, 1 repeat allowed; prereq instructor consent; Instructor: Baizerman, Michael Leon

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

**YOST 4002W Constructing Personal Models of Youth Scholarship and Youth Work**

4 credit(s); prereq 2002; Instructor: VeLure Roholt, Ross Ronald

**Description:** This course integrates and ends the university wide undergraduate Youth Studies Minor. Students will analyze and reflect on Youth Studies Minor content, especially those models, theories, and concepts presented in the introductory course. The four foci remain: Youth, young people, youthhood, and youth work. Class discussion and written assignments will guide the effort to integrate the youth content and then the youth content with models and personal beliefs on how to respond to youth, and then all of this with the student's personal occupational and vocational callings. Style: 10% Lecture, 10% Film/Video, 60% Discussion, 10% Student Presentation, 5% Field Trips, 5% Guest Speakers.

**Grading:** 30% reports/papers, 20% reflection paper, 30% in-class presentation, 20% class participation.

**YOST 4196 Youthwork Internship**

4 credit(s); prereq Declaration of youth studies major, instr consent; Instructor: VeLure Roholt, Ross Ronald

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

**YOST 4314 Theater Activities in Youthwork and Education**

2 credit(s); prereq 1001 or 2101; Credit will not be granted if credit has been received for: YOST 5314; Instructor: Mandell, Janice L

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

**YOST 4401W Young People's Spirituality and Youthwork: An Introduction**

4 credit(s); prereq 1001 or 2002W or instr consent; Credit will not be granted if credit has been received for: YOST 5401; Meets CLE req of Writing Intensive; Instructor: Kimball, Lisa

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

**YOST 4402 Youth Policy: Enhancing Healthy Development in Everyday Life**

4 credit(s); prereq [1001, 2002W] or instr consent; Credit will not be granted if credit has been received for: YOST 5402; Instructor: Stein, Jerome A

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

**YOST 4411 Youth Research and Youth Program Evaluation**

5 credit(s); prereq Basic research methods course or instr consent; Instructor: Baizerman, Michael Leon

**Description:** Student may contact the instructor or department for information.
YOST 5031 International Youthwork
3 credit(s); prereq 2xxx or instr consent; Credit will not be granted if credit has been received for: YOST 3031;
Instructor: VeLure Roholt, Ross Ronald
Description: Student may contact the instructor or department for information.

YOST 5291 Independent Study in Youth Studies
1-8 credit(s), max credits 8, 1 repeat allowed;
Instructor: STAFF
Description: Independent reading and/or research under faculty supervision. This course can be taken for undergraduate or graduate credit.
Style: Individually designed and negotiated.

YOST 5314 Theatre Activities in Youthwork and Education
2 credit(s); prereq 1001 or 2101; Credit will not be granted if credit has been received for: YOST 4314;
Instructor: Mandell, Janice L
Description: Student may contact the instructor or department for information.

YOST 5401 Young People's Spirituality and Youthwork: an Introduction
A-F only, 4 credit(s); prereq [2001, one course each in [Anth, Soc, CPsy]] or instr consent; Credit will not be granted if credit has been received for: YOST 4401W;
Instructor: Kimball, Lisa
Description: Exploration of spirituality and its relationship to youth work; the healthy spiritual development of young people in their everyday lives, and the types of youth work practices most respectful of and best able to facilitate this. Understanding the complex terrain that is spirituality in an increasingly pluralistic world, and the distinctions between religion, religiosity, faith, morality, and spirituality.
Style: 5% Lecture, 60% Discussion. Video, site visits, student presentations, guest speakers
Grading: 65% reports/papers, 15% special projects, 20% class participation.

YOST 5402 Youth Policy: Enhancing Healthy Development in Everyday Life
4 credit(s); prereq [2001, one course each in [FSoS, PolSci, Soc]] or instr consent; Credit will not be granted if credit has been received for: YOST 4402;
Instructor: Stein, Jerome A
Description: Student may contact the instructor or department for information.